CDX-GT10W/GT100/ GT150/GT150S

SERVICE MANUAL

Ver. 1.0 2005. 09

US Model
Canadian Model
CDX-GT10W/GT100
E Model
CDX-GT150/GT150S

(Photo: CDX-GT100)

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS (US, Canadian model)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611XE-186//C
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD Player section

Signal-to-noise ratio: 120 dB
Frequency response: 10 – 20,000 Hz
Wow and flutter: Below measurable limit

Tuner section

FM

Tuning range (CDX-GT10W/GT100):
87.5 – 107.9 MHz
Tuning range (CDX-GT150/GT150S):
87.5 – 108.0 MHz (at 50 kHz step)
87.5 – 107.9 MHz (at 200 kHz step)
FM tuning interval (CDX-GT150/GT150S):
50 kHz/200 kHz switchable
Antenna terminal: External antenna connector
Intermediate frequency: 10.7 MHz/450 kHz
Usable sensitivity: 9 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz:
0.5 % (stereo), 0.3 % (mono)
Separation: 35 dB at 1 kHz
Frequency response: 30 – 15,000 Hz

AM

Tuning range (CDX-GT10W/GT100):
530 – 1,710 kHz
Tuning range (CDX-GT150/GT150S):
531 – 1,602 kHz (at 9 kHz step)
530 – 1,710 kHz (at 10 kHz step)
Antenna terminal: External antenna connector
Intermediate frequency: 10.7 MHz/450 kHz
Sensitivity: 30 µV

Power amplifier section

Outputs: Speaker outputs (sure seal connectors)
Speaker impedance: 4 – 8 ohms
Maximum power output: 52 W × 4 (at 4 ohms) (CDX-GT10/GT100/GT150)
45 W × 4 (at 4 ohms) (CDX-GT150S)

General

Outputs: Audio outputs terminal (sub/rear switchable)
Power antenna relay control terminal
Power amplifier control terminal
Inputs: Antenna input terminal
AUX input jack (stereo mini jack)
Tone controls: Low: ±10 dB at 60 Hz (XPLOD)
Mid: ±10 dB at 1 kHz (XPLOD)
High: ±10 dB at 10 kHz (XPLOD)
Power requirements: 12 V DC car battery (negative ground)
Dimensions: Approx. 178 × 50 × 179 mm
(7 1/8 × 2 × 7 1/8 in) (w/h/d)
Mounting dimensions: Approx. 182 × 53 × 161 mm
(7 1/4 × 2 1/8 × 6 3/8 in) (w/h/d)
Mass: Approx. 1.2 kg (2 lb 11 oz)
Supplied accessories: Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

FM/AM COMPACT DISC PLAYER

9-879-863-01
2005I04-1
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Sony Corporation
e Vehicle Group
Published by Sony Engineering Corporation

SONY®

SERVICE NOTES

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior. (CDX-GT150/GT150S)

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

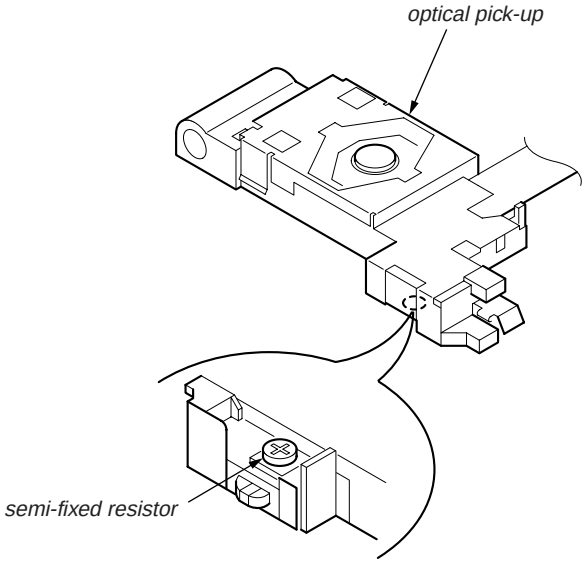
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Notes on CD-DA/CD-R/CD-RW

• CD playback:
You can play CD-DA and CD-R/CD-RW for audio use.

COMPACT disc DIGITAL AUDIO Recordable

COMPACT disc DIGITAL AUDIO ReWritable

● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

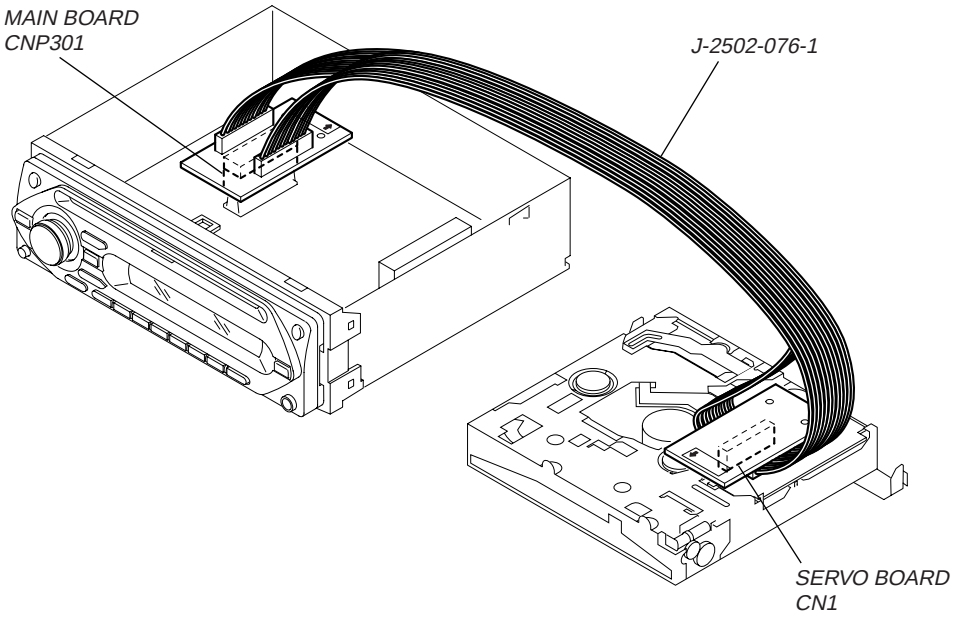
• Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN1) with the extension cable (Part No. J-2502-076-1).



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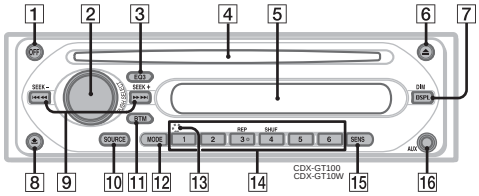
SECTION 1
GENERAL

This section is extracted from instruction manual.

• CDX-GT10W/GT100

Location of controls and basic operations

Main unit



Refer to the pages listed for details.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** 6
To adjust volume (rotate); select setup items (press and rotate).

3 **EQ3 (equalizer) button** 6
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

4 **Disc slot**
To insert the disc (label side up), playback starts.

5 **Display window**

6 **⏏ (eject) button**
To eject the disc.

7 **DSPL (display)/DIM (dimmer) button** 4
To change display items (press); change the display brightness (press and hold).

8 **(front panel release) button** 4

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **SOURCE button**
To power on; change the source (Radio/CD/AUX).

11 **BTM button** 6
To start the BTM function (press and hold).

12 **MODE button** 6
To select the radio band (FM/AM).

13 **RESET button** (located behind the front panel) 4

14 **Number buttons**
CD:
③: **REP**
To play the current track repeatedly.
④: **SHUF**
To play the tracks in random order.
Radio:
To receive stored stations (press); store stations (press and hold).

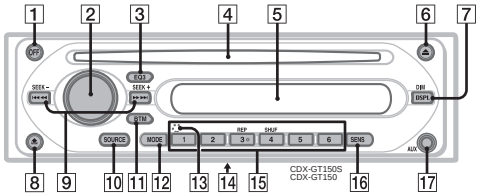
15 **SENS button**
To improve weak reception: LOCAL/MONO.

16 **AUX input jack** 7
To connect a portable audio device.

• CDX-GT150/GT150S

Location of controls and basic operations

Main unit



Refer to the pages listed for details.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** 6
To adjust volume (rotate); select setup items (press and rotate).

3 **EQ3 (equalizer) button** 6
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

4 **Disc slot**
To insert the disc (label side up), playback starts.

5 **Display window**

6 **⏏ (eject) button**
To eject the disc.

7 **DSPL (display)/DIM (dimmer) button** 4
To change display items (press); change the display brightness (press and hold).

8 **(front panel release) button** 4

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **SOURCE button**
To power on; change the source (Radio/CD/AUX).

11 **BTM button** 6
To start the BTM function (press and hold).

12 **MODE button** 6
To select the radio band (FM/AM).

13 **RESET button** (located behind the front panel) 4

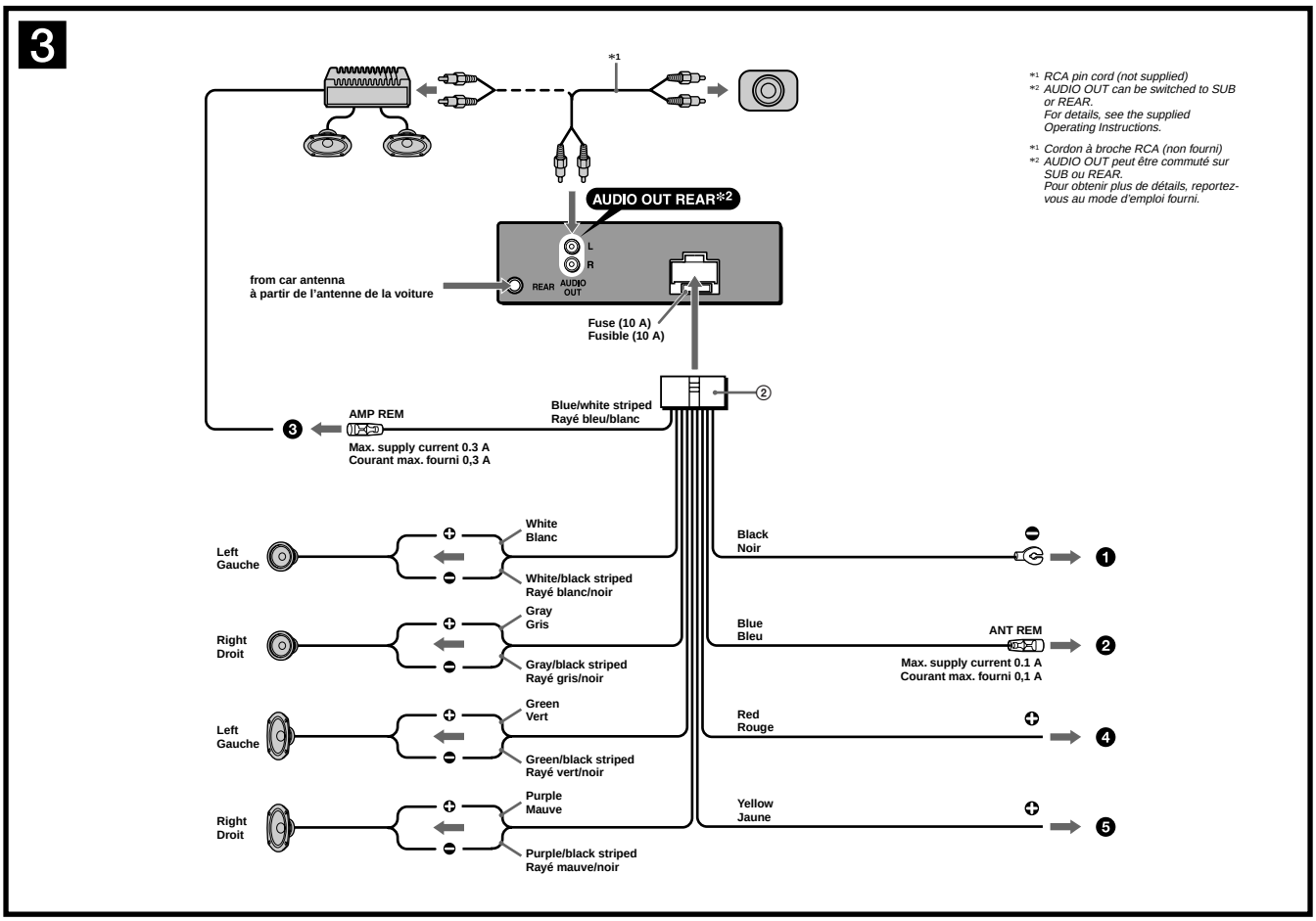
14 **Frequency select switch (located on the bottom of the unit)**
See "Frequency Select switch" in the supplied installation/connections manual.

15 **Number buttons**
CD:
③: **REP**
To play the current track repeatedly.
④: **SHUF**
To play the tracks in random order.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **SENS button**
To improve weak reception: LOCAL/MONO.

17 **AUX input jack** 7
To connect a portable audio device.

• CONNECTIONS



*1 RCA pin cord (not supplied)
*2 AUDIO OUT can be switched to SUB or REAR.
For details, see the supplied Operating Instructions.

*1 Cordon à broche RCA (non fourni)
*2 AUDIO OUT peut être commuté sur SUB ou REAR.
Pour obtenir plus de détails, reportez-vous au mode d'emploi fourni.

Connection diagram 3

❶ To a metal surface of the car
First connect the black ground lead, then connect the yellow and red power input leads.

❷ To the power antenna control lead or power supply lead of antenna booster amplifier

Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ To the +12 V power terminal which is energized in the accessory position of the ignition key switch

Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❺ To the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement 3

❶ À un point métallique de la voiture
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

❷ Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne

Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires

Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❺ À la borne +12 V qui est alimentée en permanence
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de +12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

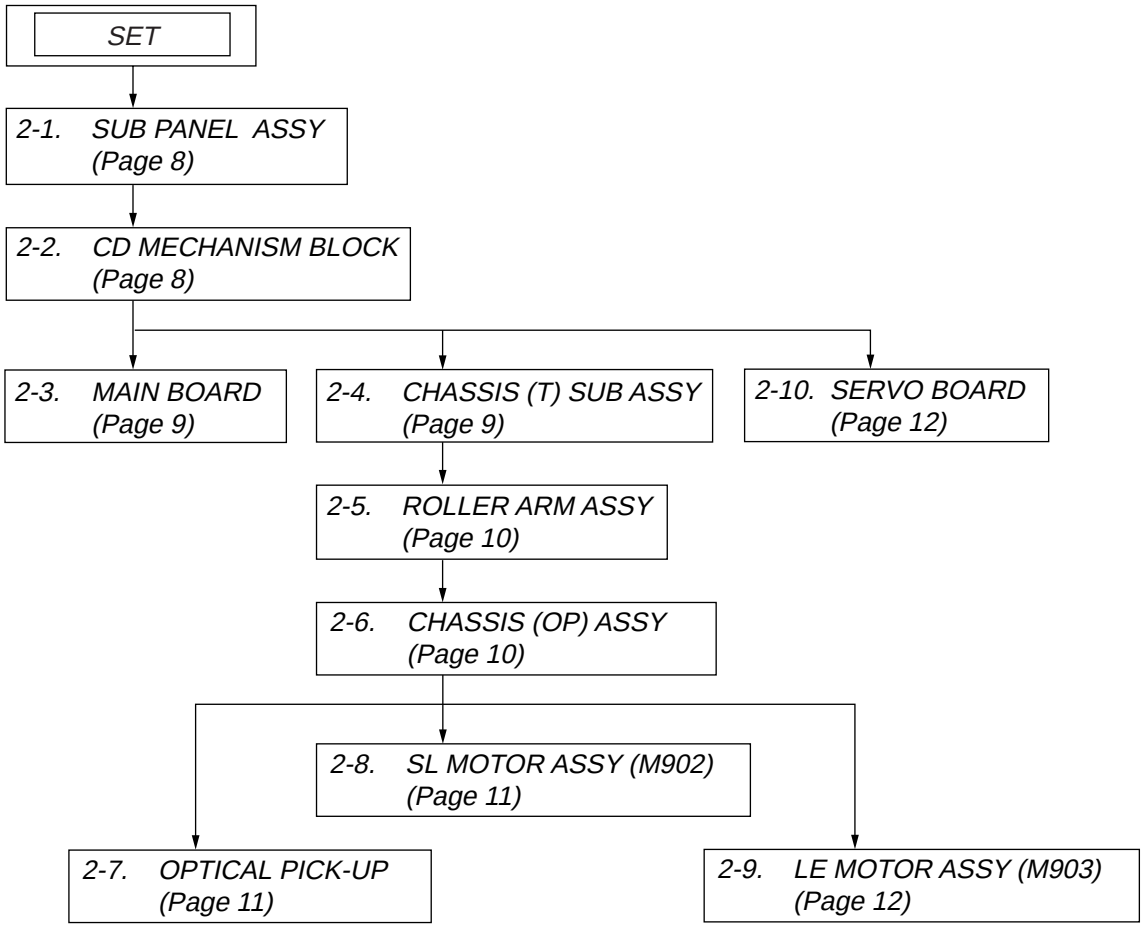
Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.


SET
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2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 9)
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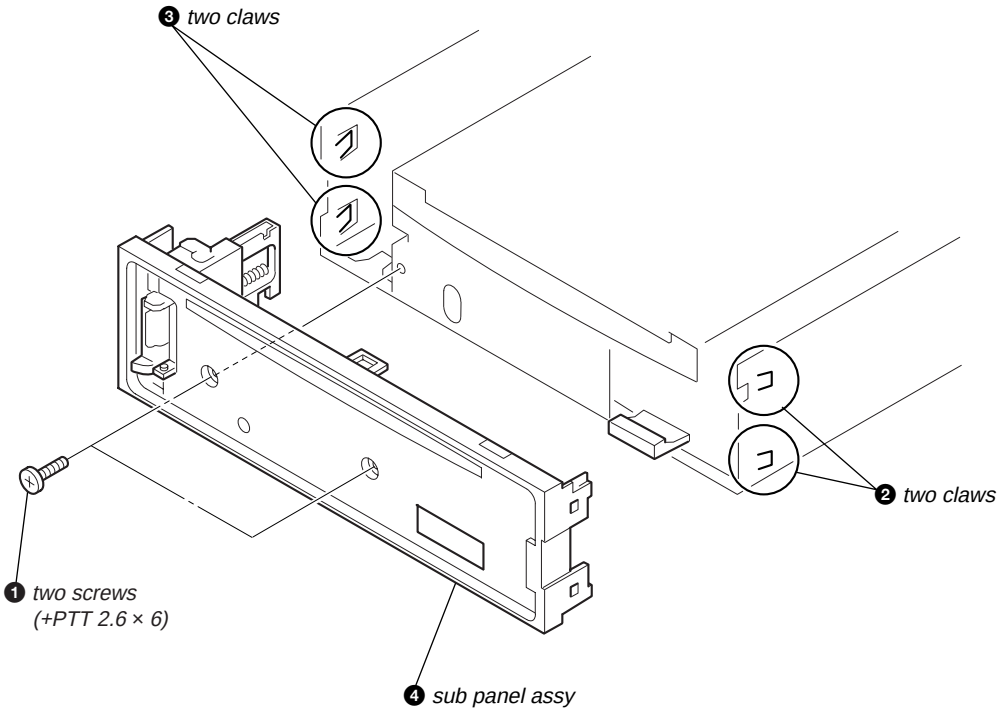
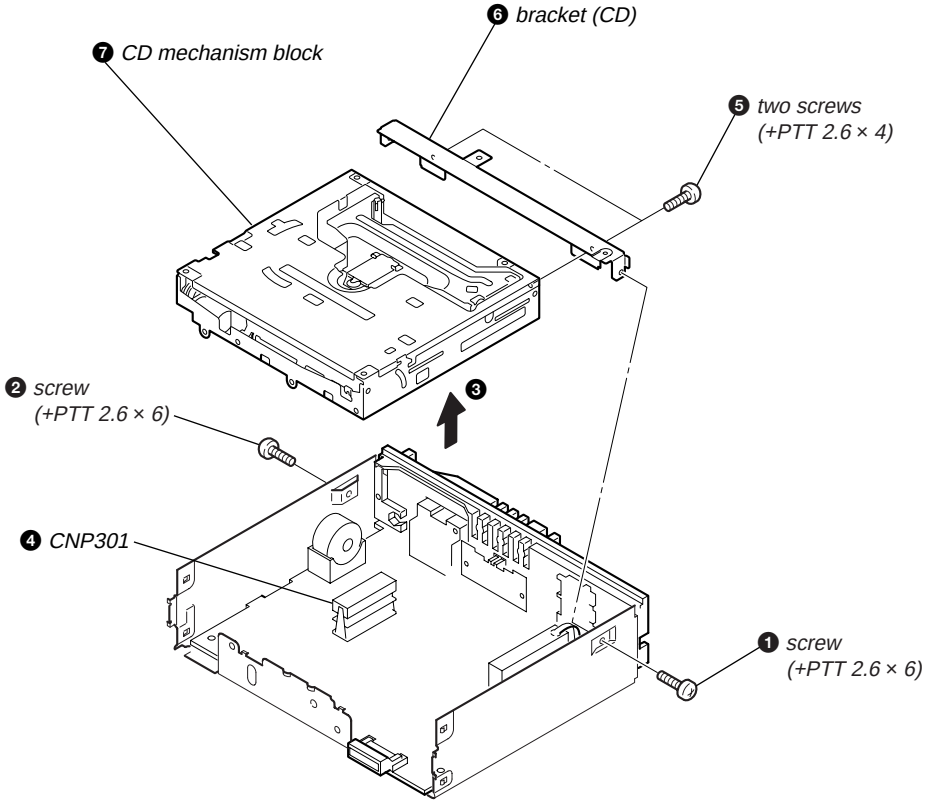
2-8. SL MOTOR ASSY (M902) (Page 11)
2-7. OPTICAL PICK-UP (Page 11)
2-9. LE MOTOR ASSY (M903) (Page 12)

Note : Follow the disassembly procedure in the numerical order given.

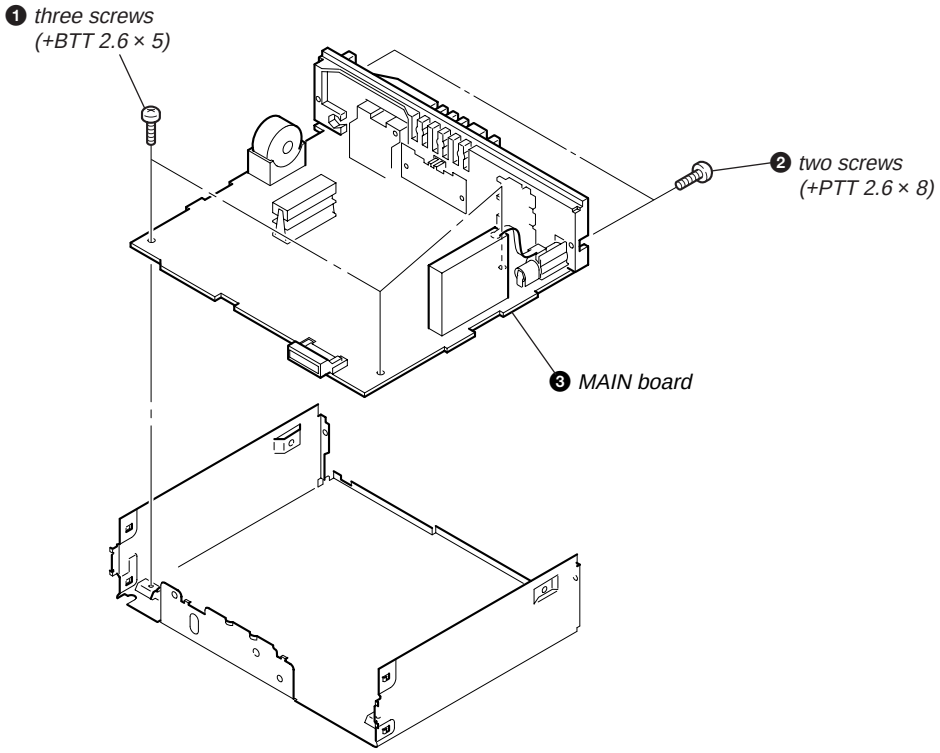
2-1. SUB PANEL ASSY



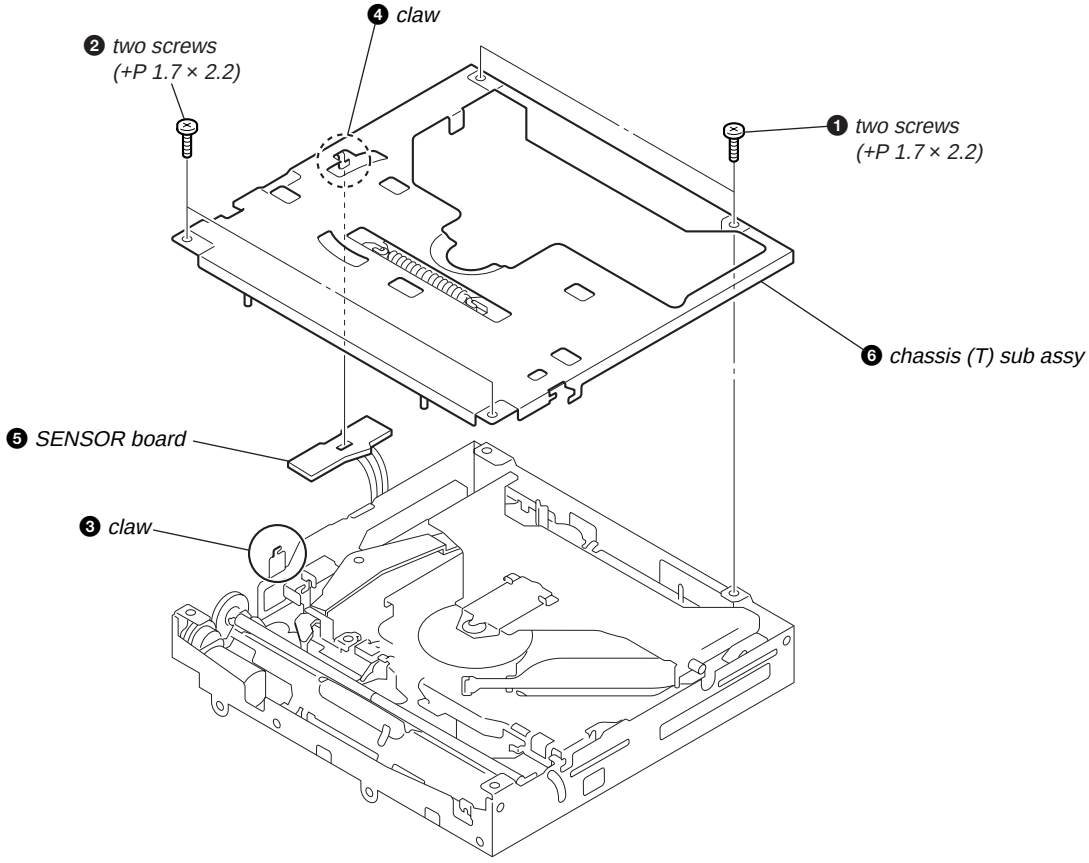
2-2. CD MECHANISM BLOCK



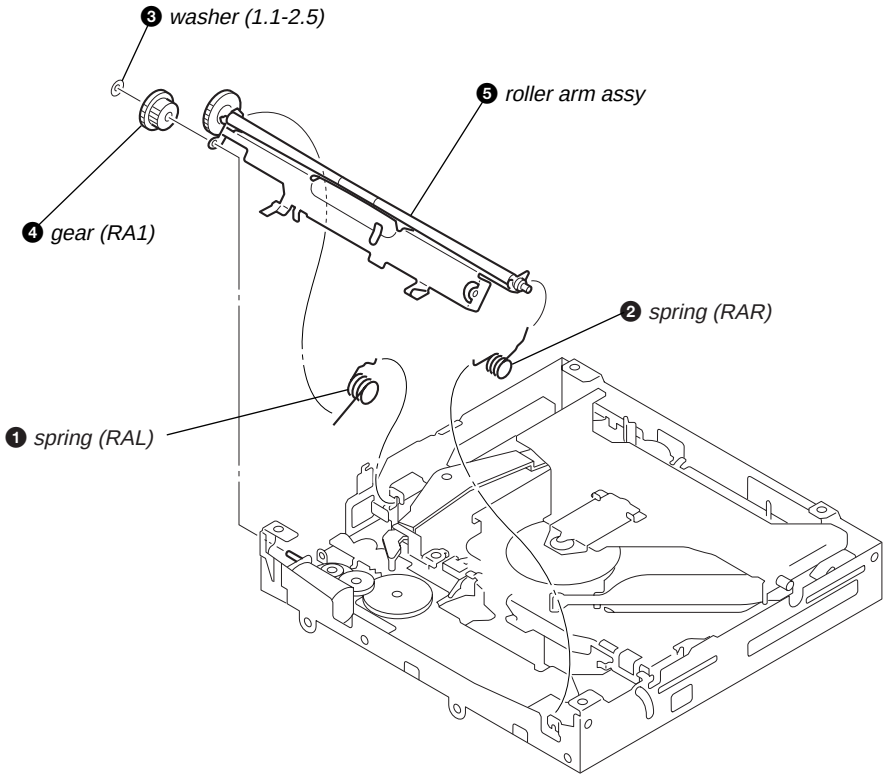
2-3. MAIN BOARD



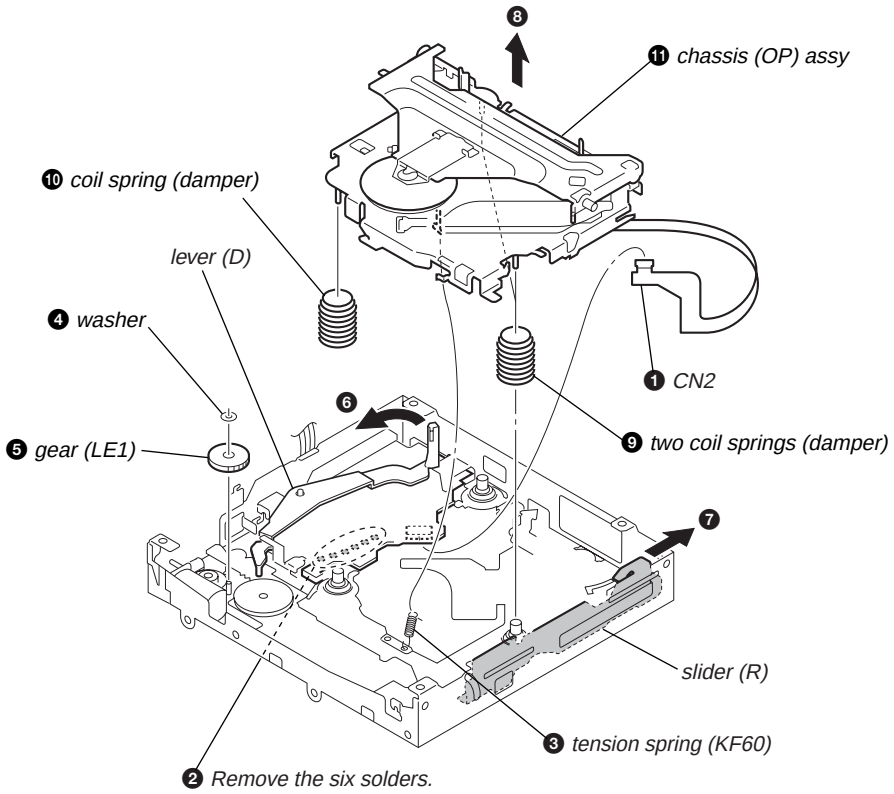
2-4. CHASSIS (T) SUB ASSY



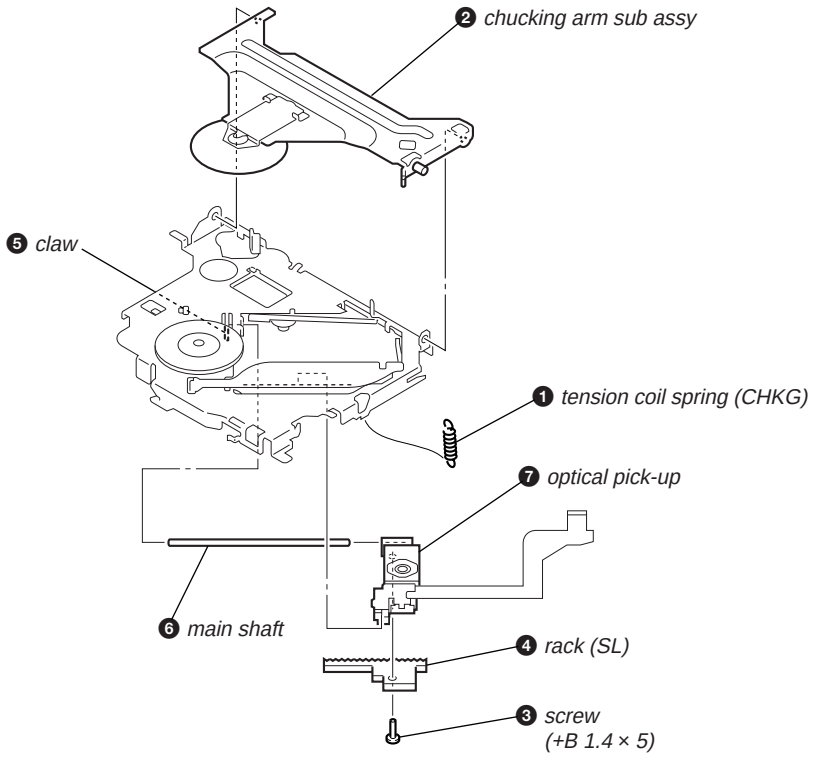
2-5. ROLLER ARM ASSY



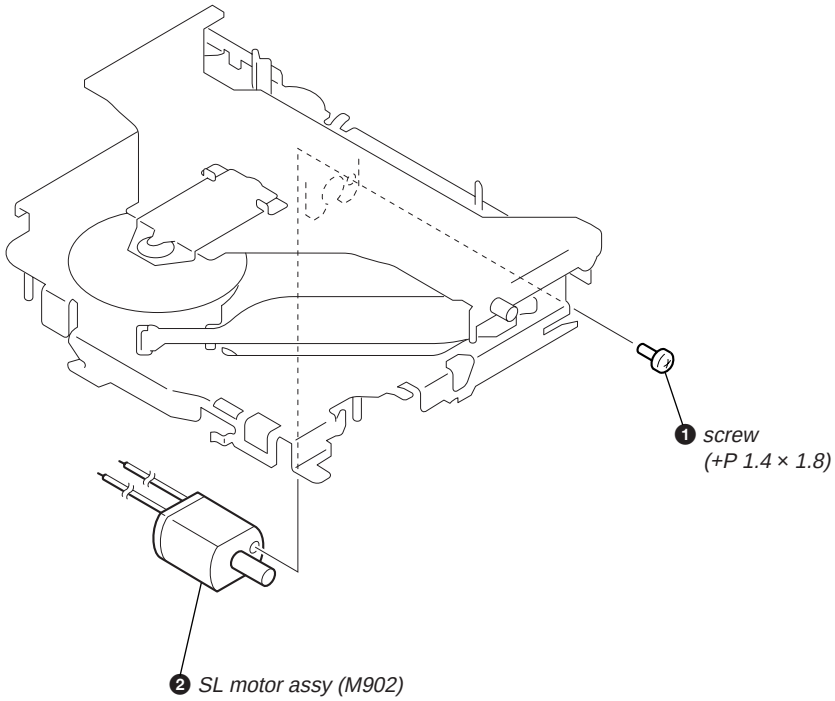
2-6. CHASSIS (OP) ASSY



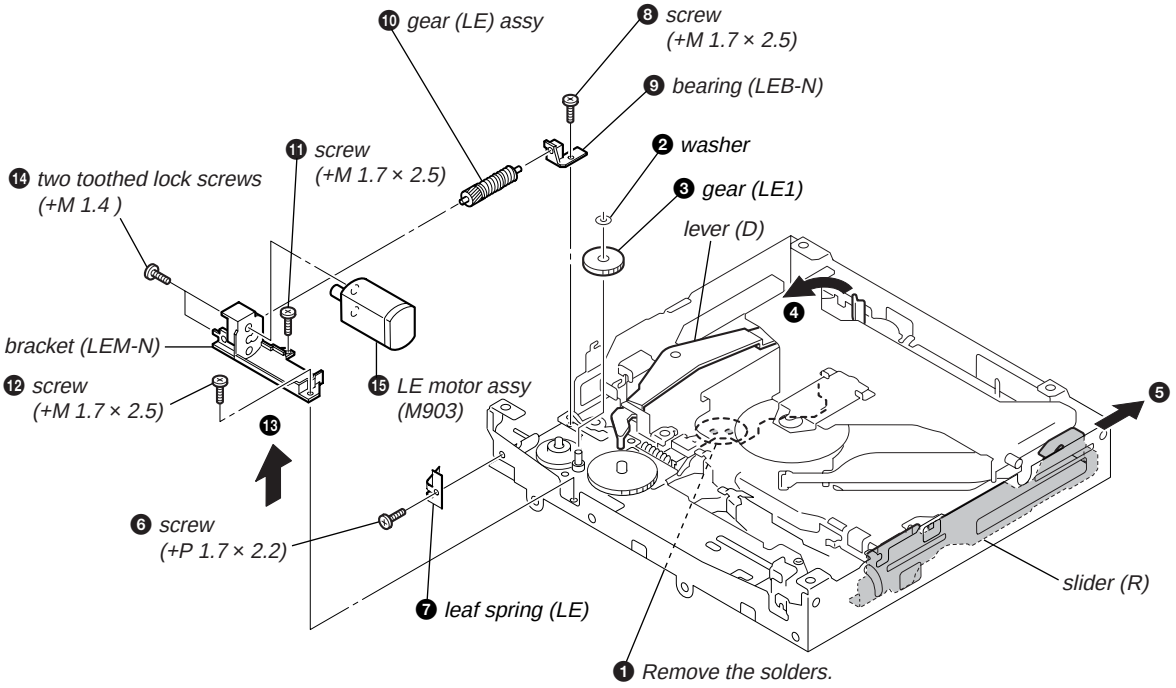
2-7. OPTICAL PICK-UP



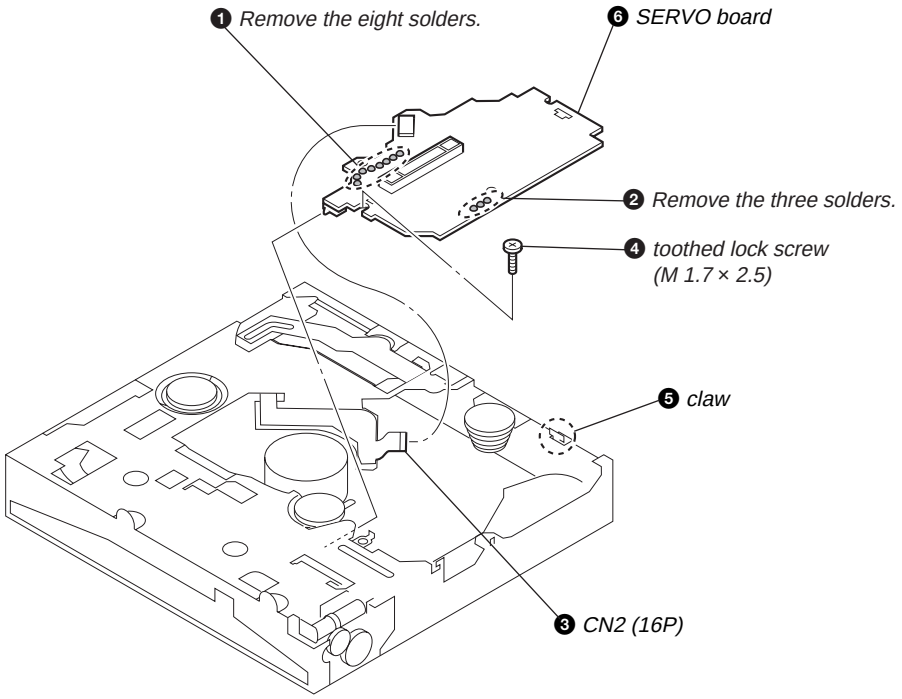
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

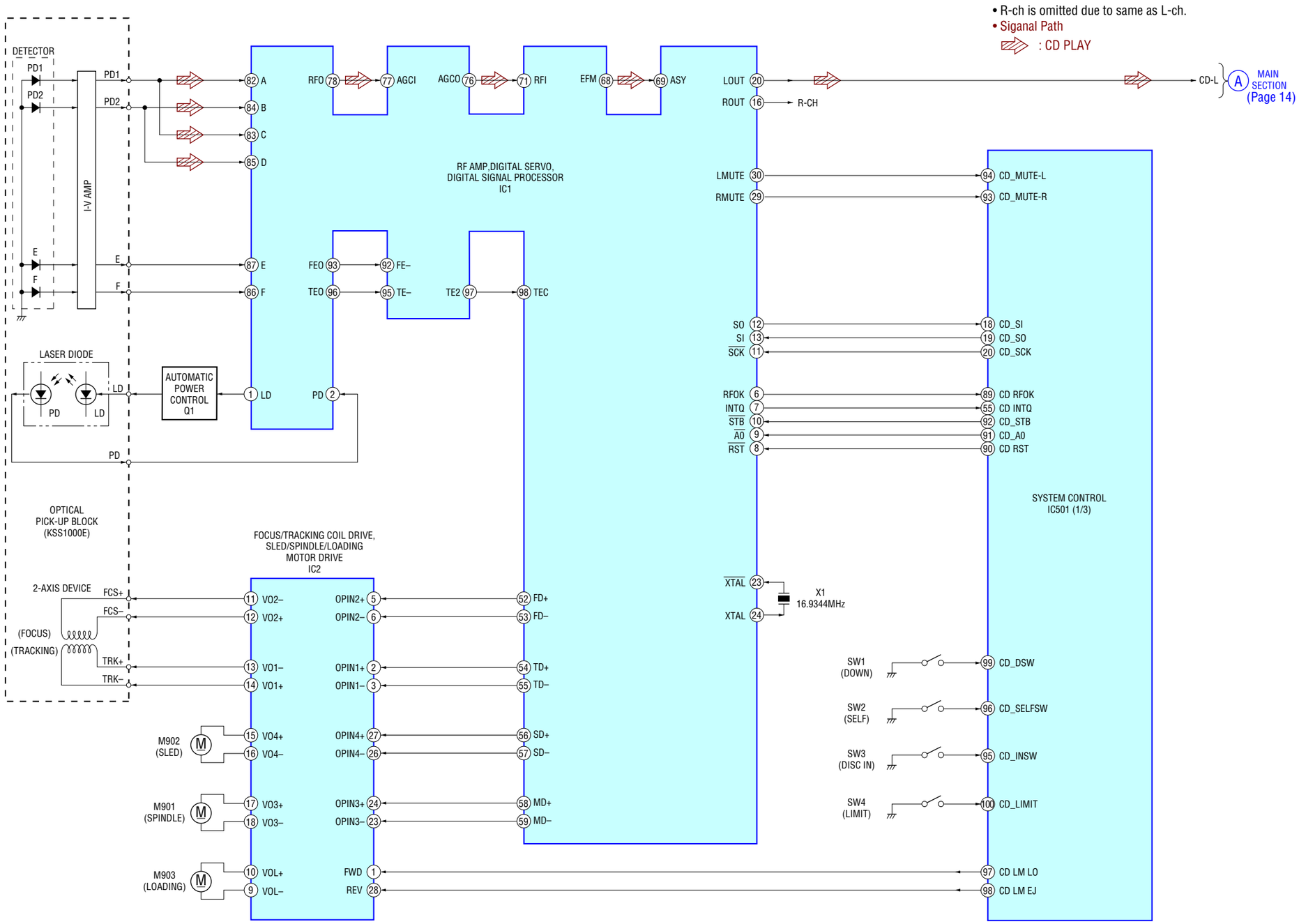


2-10. SERVO BOARD

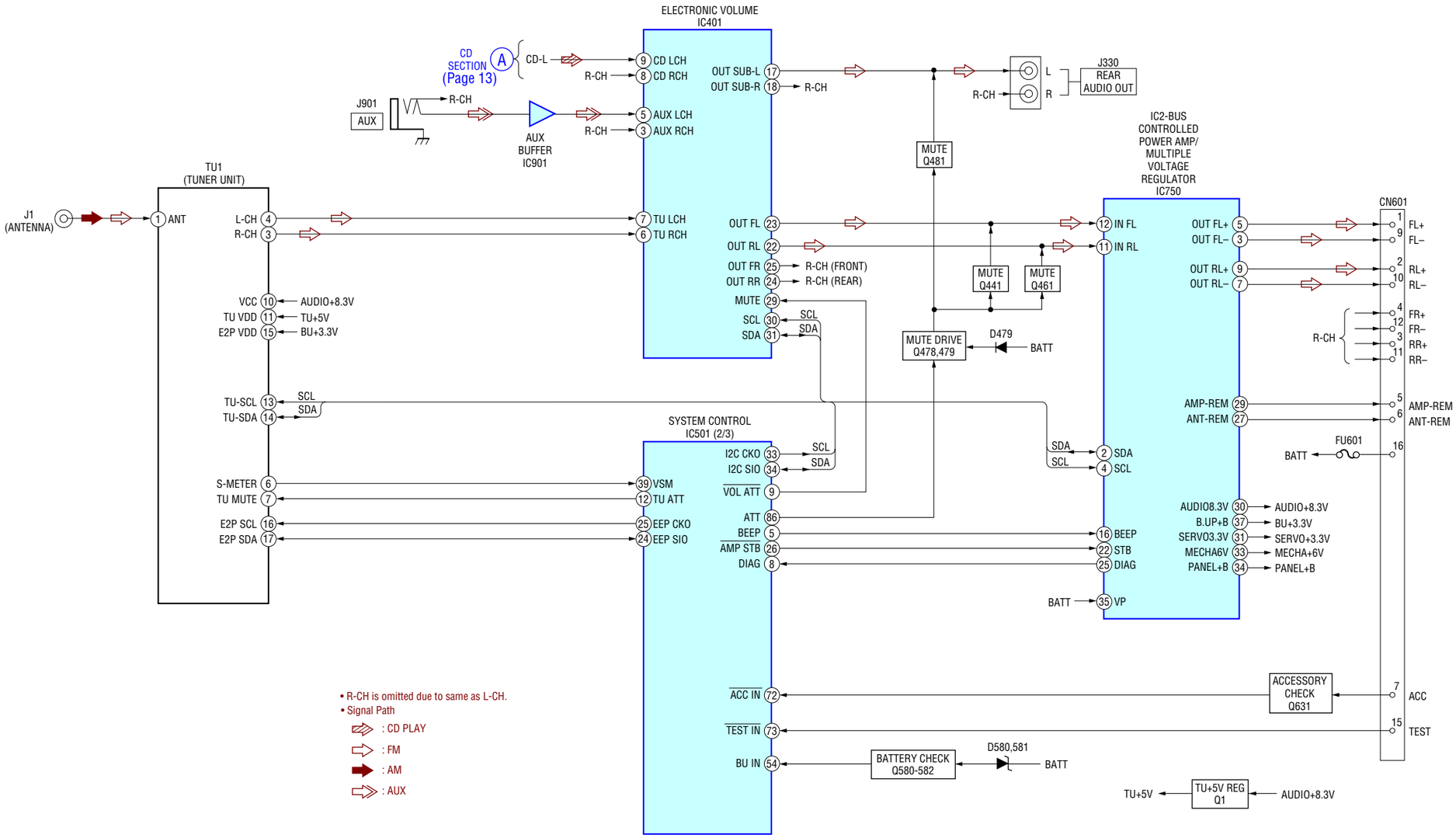


SECTION 3
DIAGRAMS

3-1. BLOCK DIAGRAM — CD SECTION —

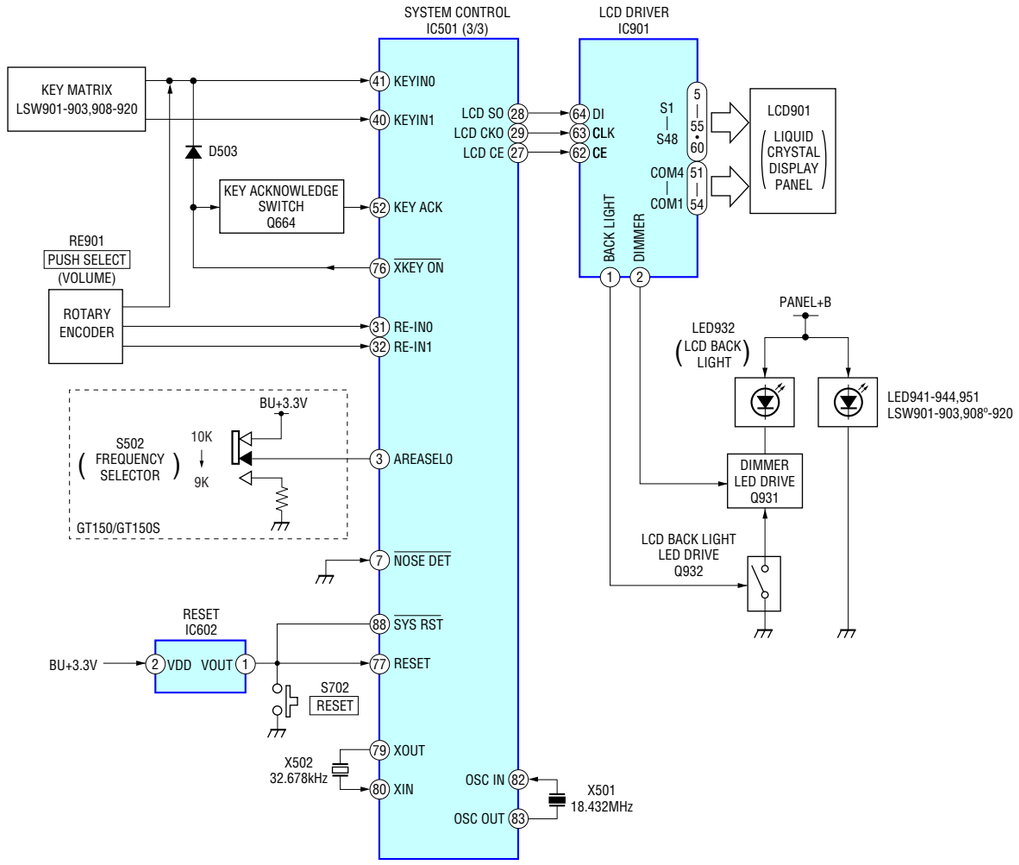


3-2. BLOCK DIAGRAM — MAIN SECTION —

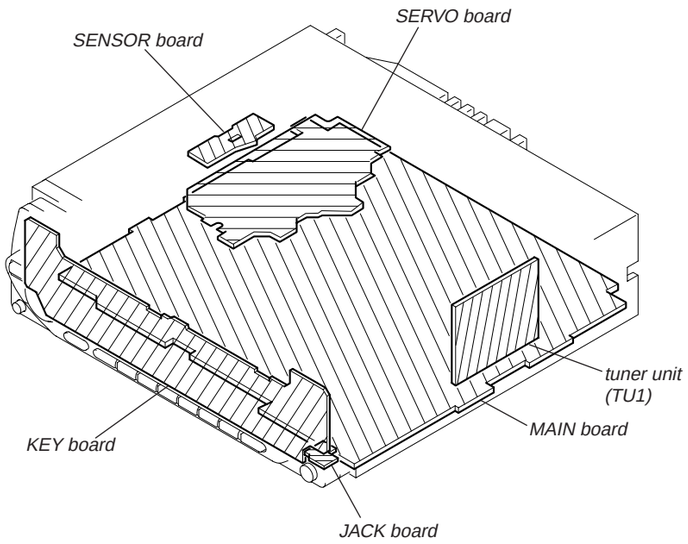


• R-CH is omitted due to same as L-CH.
• Signal Path
: CD PLAY
: FM
: AM
: AUX

3-3. BLOCK DIAGRAM — DISPLAY SECTION —



3-4. CIRCUIT BOARDS LOCATION



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section
  no mark : CD PLAY
- Main (1/3), (2/3), (3/3) and Key sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM
  ⇨ : AUX

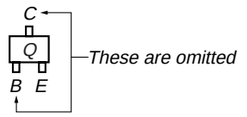
For printed wiring boards.

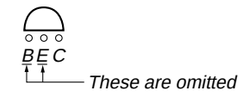
Note:

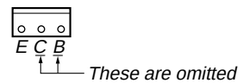
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

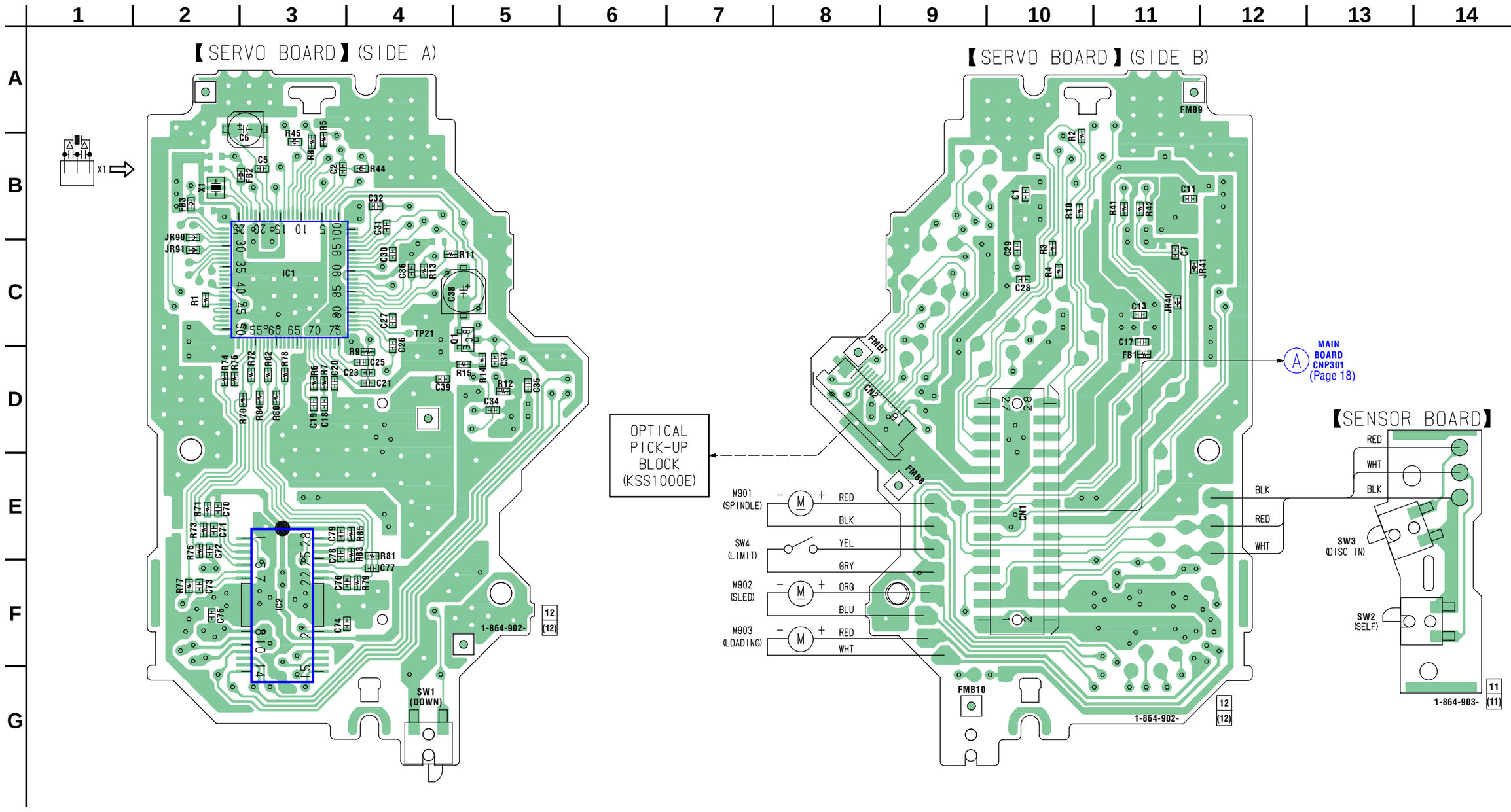
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.





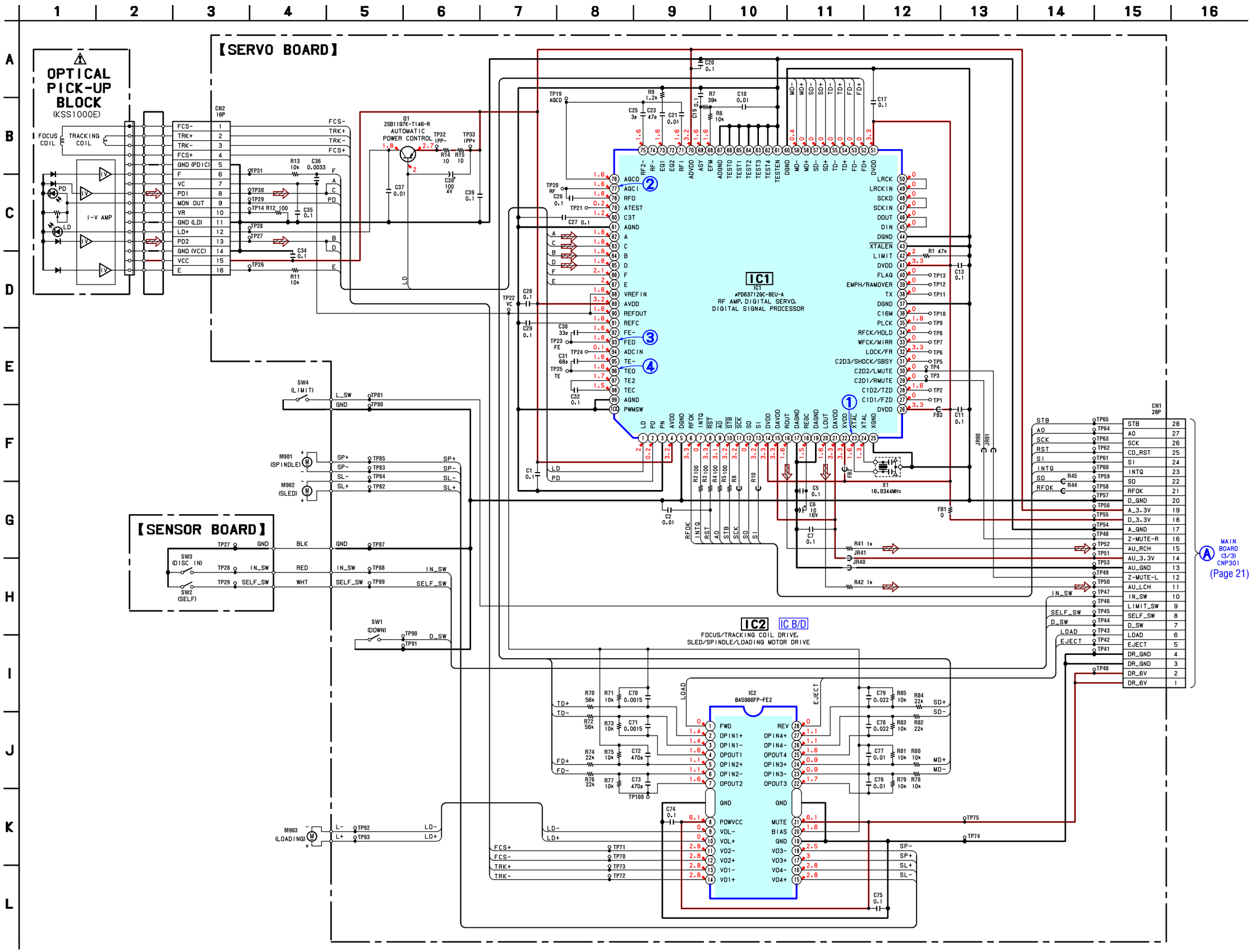


3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.

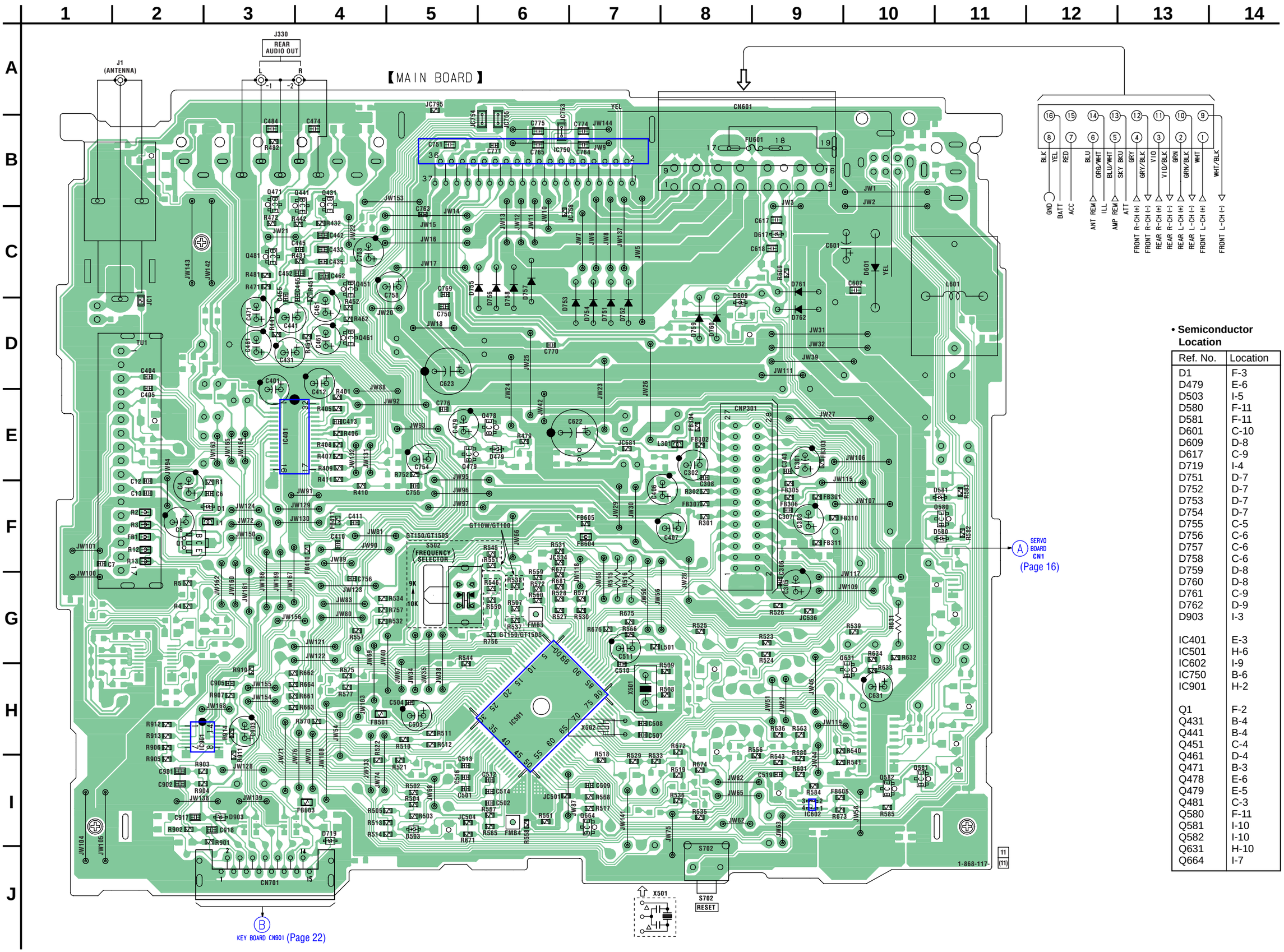


• Refer to page 24 for Waveforms.
• Refer to page 27 for IC Pin Description.
• Refer to page 24 for IC Block Diagrams.

3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION —



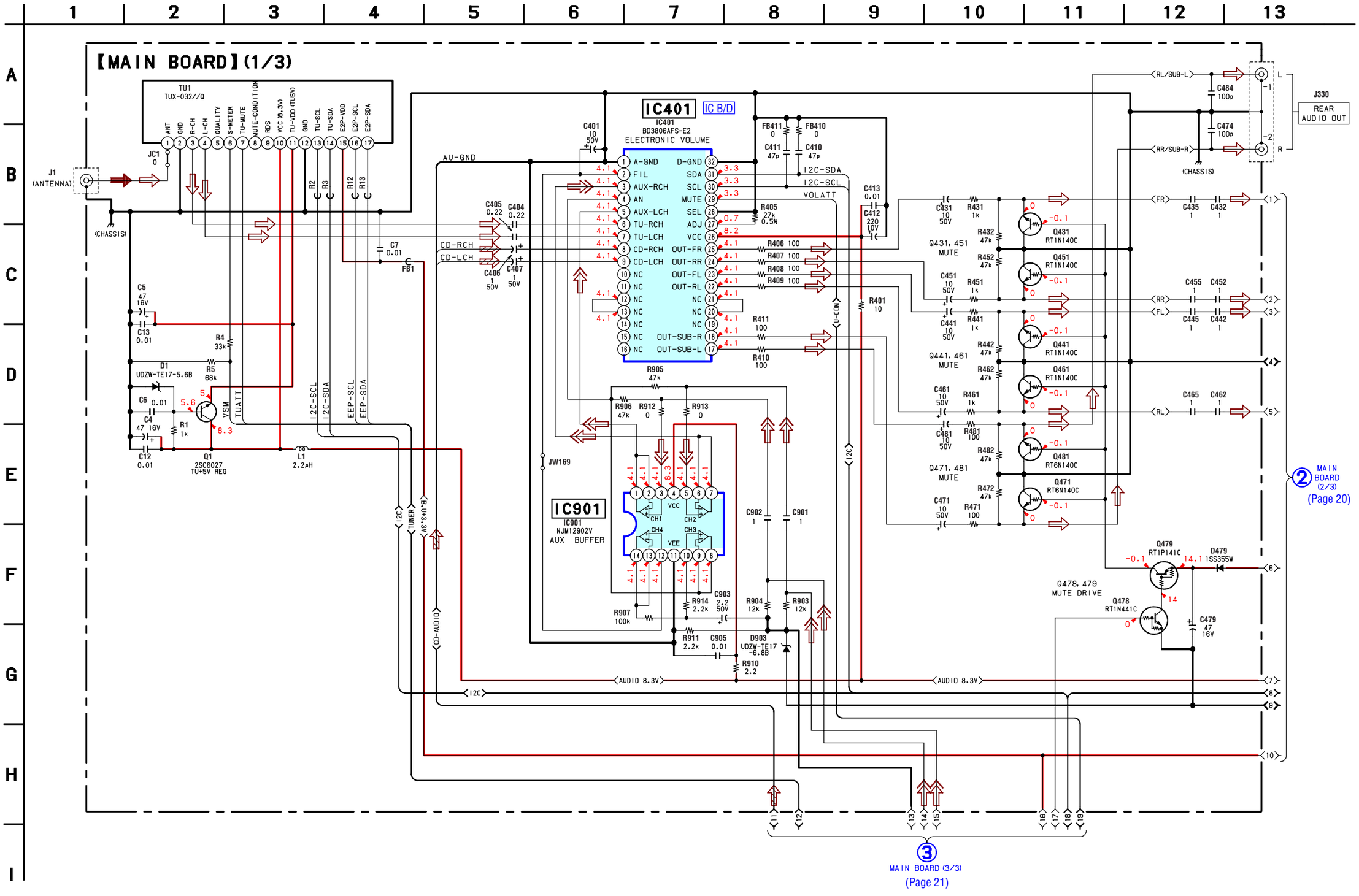
3-7. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



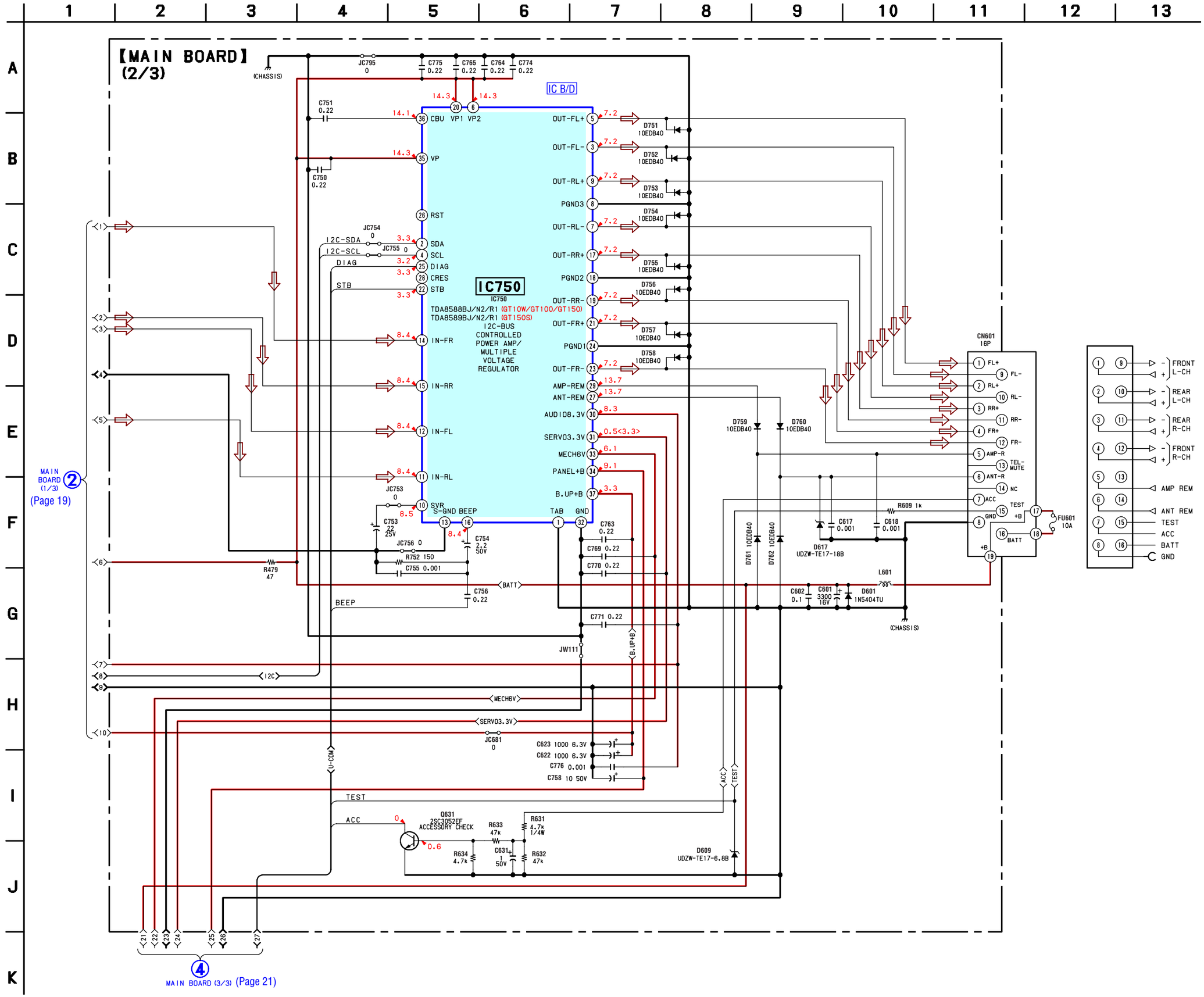
- **Semiconductor Location**

Ref. No.	Location
D1	F-3
D479	E-6
D503	I-5
D580	F-11
D581	F-11
D601	C-10
D609	D-8
D617	C-9
D719	I-4
D751	D-7
D752	D-7
D753	D-7
D754	D-7
D755	C-5
D756	C-6
D757	C-6
D758	C-6
D759	D-8
D760	D-8
D761	C-9
D762	D-9
D903	I-3
IC401	E-3
IC501	H-6
IC602	I-9
IC750	B-6
IC901	H-2
Q1	F-2
Q431	B-4
Q441	B-4
Q451	C-4
Q461	D-4
Q471	B-3
Q478	E-6
Q479	E-5
Q481	C-3
Q580	F-11
Q581	I-10
Q582	I-10
Q631	H-10
Q664	I-7

3-8. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 25 for IC Block Diagrams.

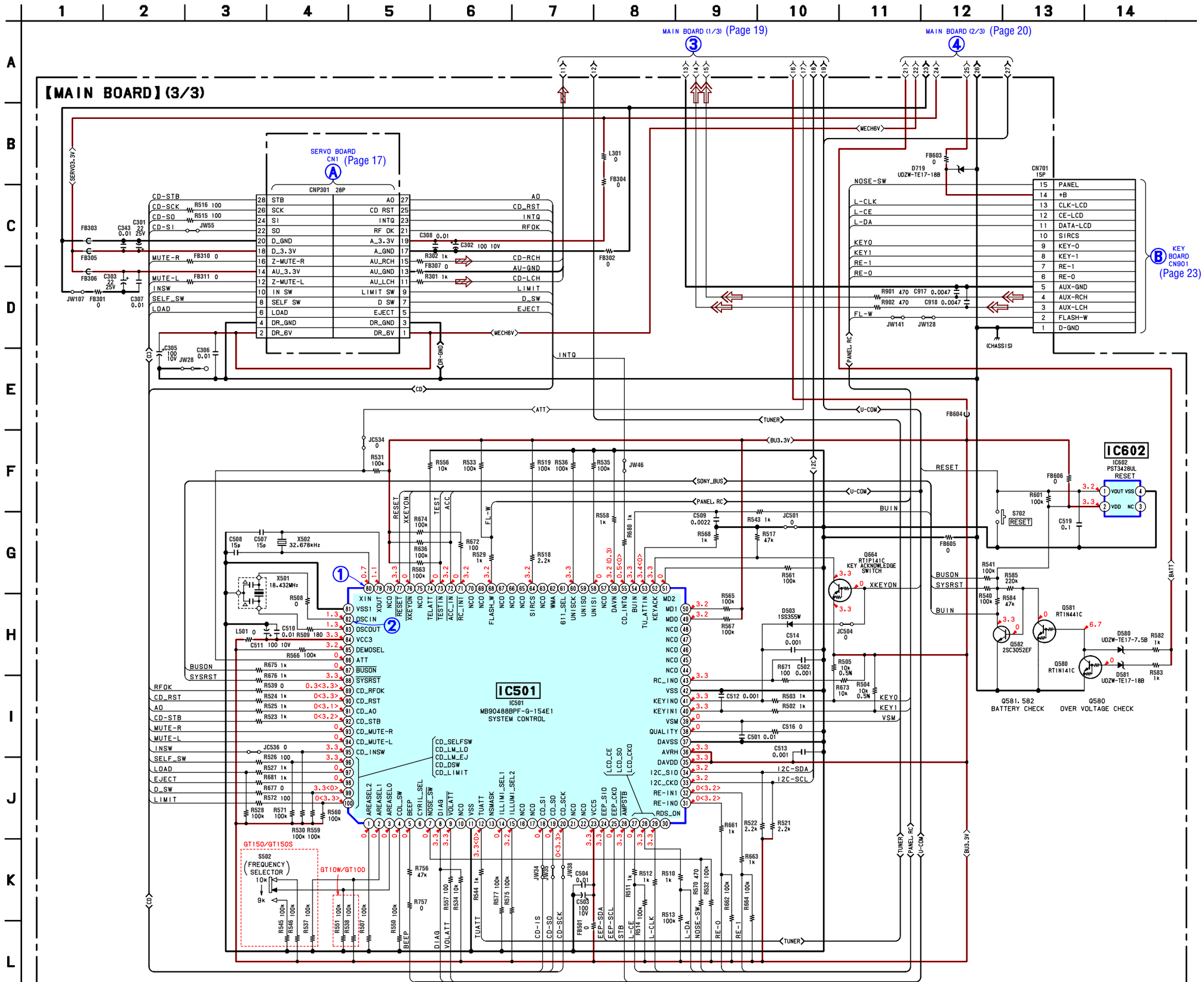


3-9. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 26 for IC Block Diagrams.

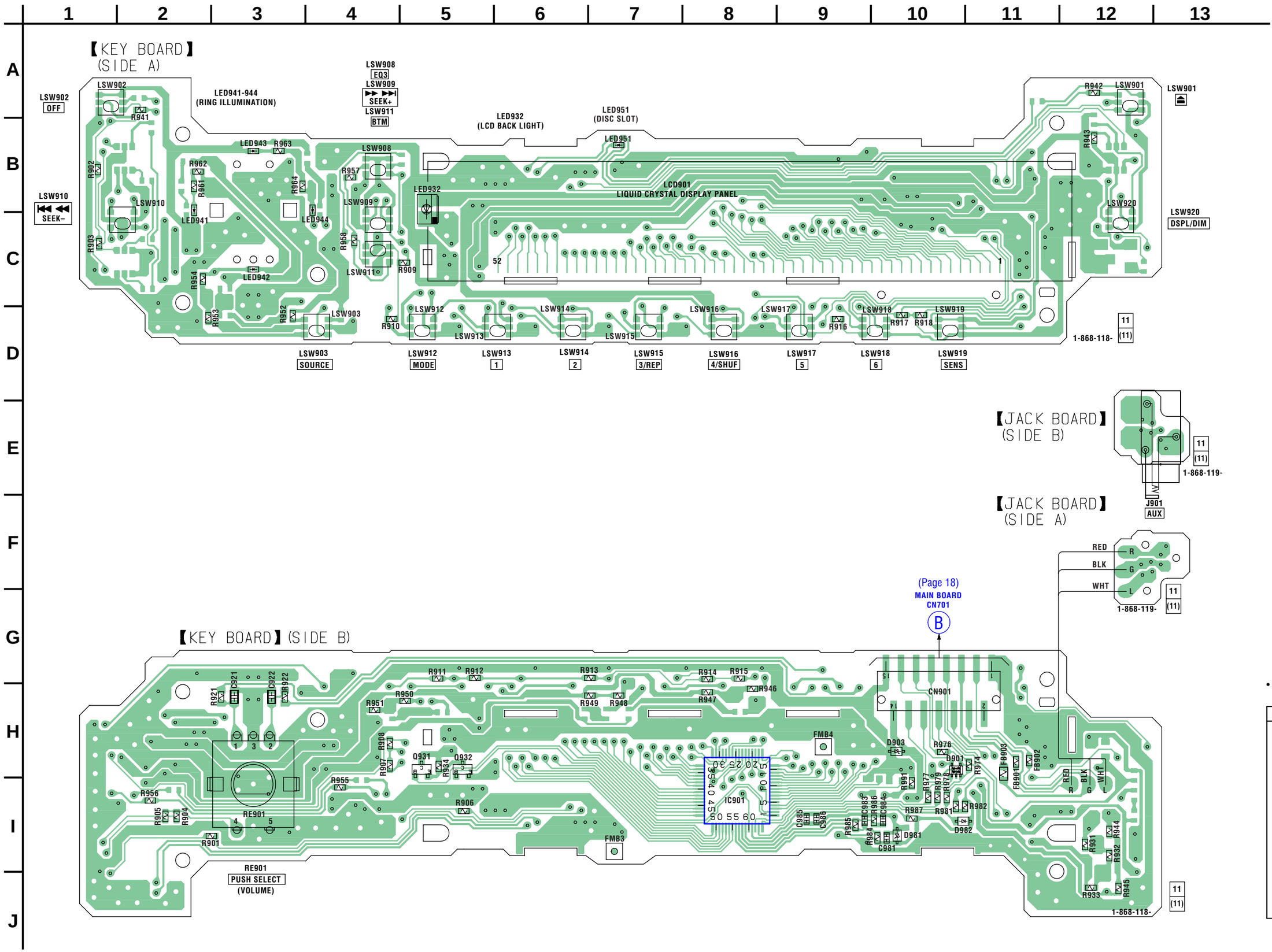


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

• Refer to page 29 for IC Pin Description.
• Refer to page 24 for Waveforms.



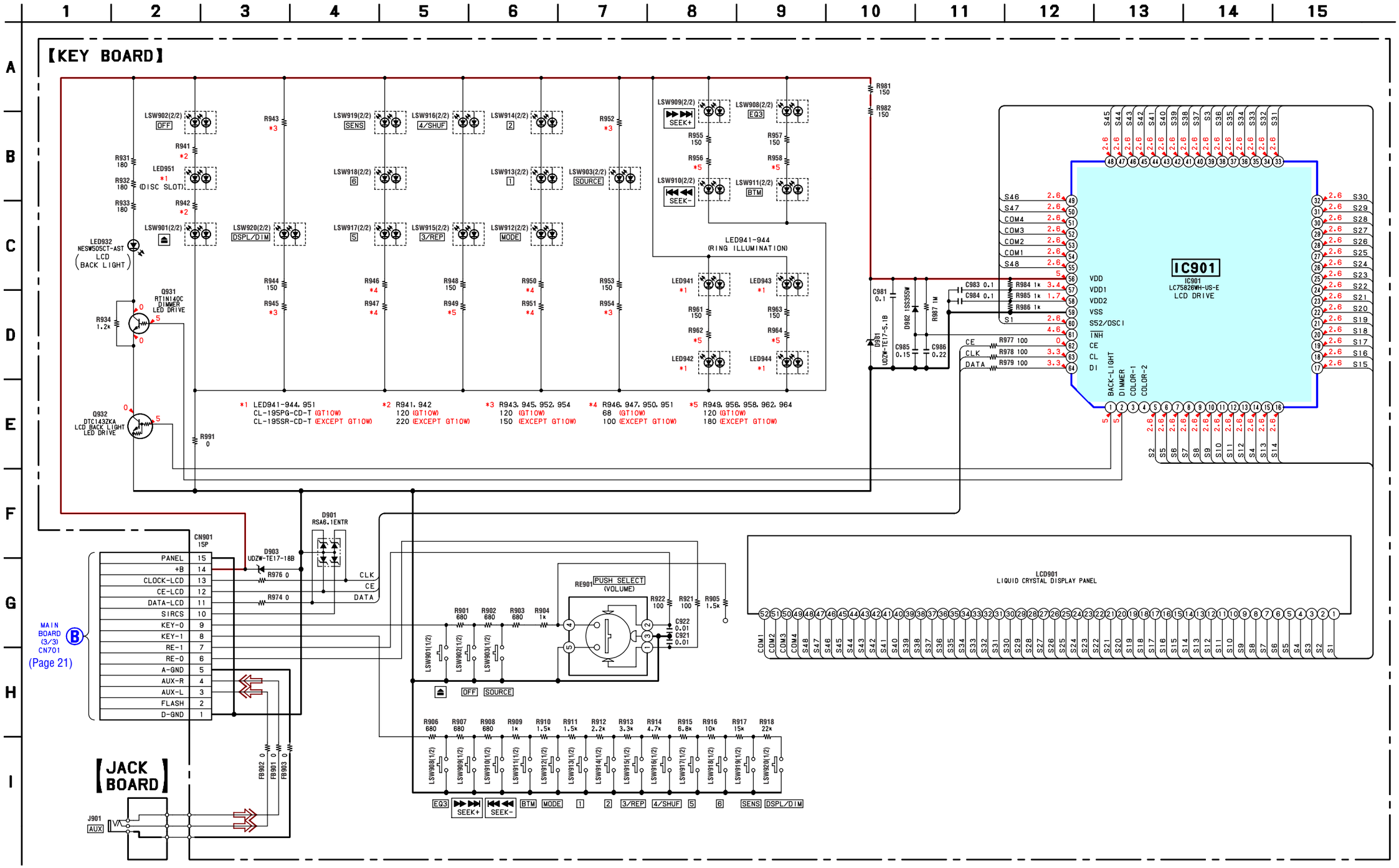
3-11. PRINTED WIRING BOARDS — KEY SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location
D901	H-10
D903	H-10
D981	I-10
D982	I-10
IC901	I-8
LED932	B-5
LED941	C-2
LED942	C-3
LED943	B-3
LED944	C-4
LED951	B-7
Q931	H-5
Q932	H-5

3-12. SCHEMATIC DIAGRAM — KEY SECTION —


【KEY BOARD】
LSW902(2/2) OFF
LSW919(2/2) SENS
LSW916(2/2) 4/SHUF
LSW914(2/2) 2
LSW909(2/2) SEEK+
LSW908(2/2) EQ3
LSW918(2/2) 6
LSW913(2/2) 1
LSW903(2/2) SOURCE
LSW910(2/2) SEEK-
LSW911(2/2) BTM
LSW901(2/2)
LSW920(2/2) DSPL/DIM
LSW917(2/2) 5
LSW915(2/2) 3/REP
LSW912(2/2) MODE
LED951 (DISC SLOT)
LED932 NESW50SCT-AST LCD BACK LIGHT
LED941-944 (RING ILLUMINATION)
LED941 LED942 LED943 LED944
Q931 RT1N140C DIMMER LED DRIVE
Q932 DTC143ZKA LCD BACK LIGHT LED DRIVE
*1 LED941-944, 951 CL-195PG-CD-T (GT10W) CL-195SR-CD-T (EXCEPT GT10W)
*2 R941, 942 120 (GT10W) 220 (EXCEPT GT10W)
*3 R943, 945, 952, 954 120 (GT10W) 150 (EXCEPT GT10W)
*4 R946, 947, 950, 951 68 (GT10W) 100 (EXCEPT GT10W)
*5 R949, 956, 958, 962, 964 120 (GT10W) 180 (EXCEPT GT10W)
IC901 LC75826WH-US-E LCD DRIVE
VDD VDD1 VDD2 VSS S52/OSCI INH CE CL DI
BACK-LIGHT DIMMER COLOR-1 COLOR-2
D981 UDZW-TE17-5.1B
D982 1SS355W
D901 RSA6.1ENTR
CN901 15P
PANEL +B CLOCK-LCD CE-LCD DATA-LCD SIRCS KEY-0 KEY-1 RE-1 RE-0 A-GND AUX-R AUX-L FLASH D-GND
D903 UDZW-TE17-18B
CLK CE DATA
MAIN BOARD (3/3) CN701 (Page 21)
【JACK BOARD】
J901 AUX
RE901 PUSH SELECT (VOLUME)
LCD901 LIQUID CRYSTAL DISPLAY PANEL
COM1 COM2 COM3 COM4

• WAVEFORMS

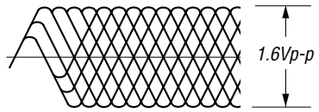
— SERVO BOARD — (CD PLAY)

① IC1 ㉓ (XTAL)

16.9344MHz

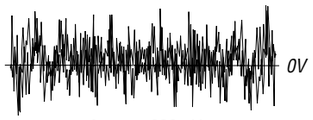
0.2 V/DIV, 0.2 µsec/DIV

② IC1 ㊼ (AGCI)



0.5 V/DIV, 0.5 µsec/DIV

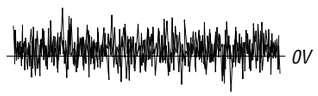
③ IC1 ㉝ (FEO)



Approx. 620mVp-p

200 mV/DIV, 5 msec/DIV

④ IC1 ㊱ (TEO)

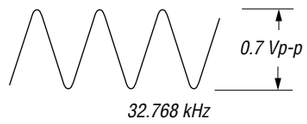


Approx. 200mVp-p

50 mV/DIV, 5 msec/DIV

— MAIN BOARD —

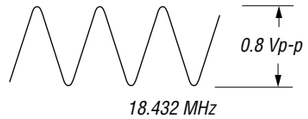
① IC501 ㊽ (XIN)



32.768 kHz

0.2 V/DIV, 0.1 µsec/DIV

② IC501 ㊷ (OSC IN)

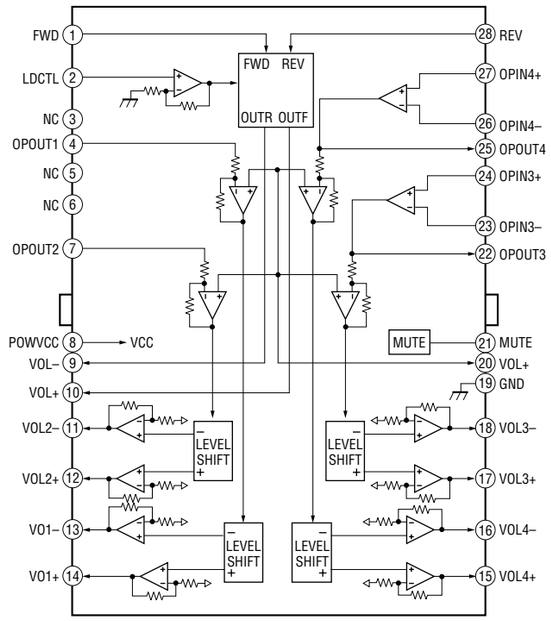


18.432 MHz

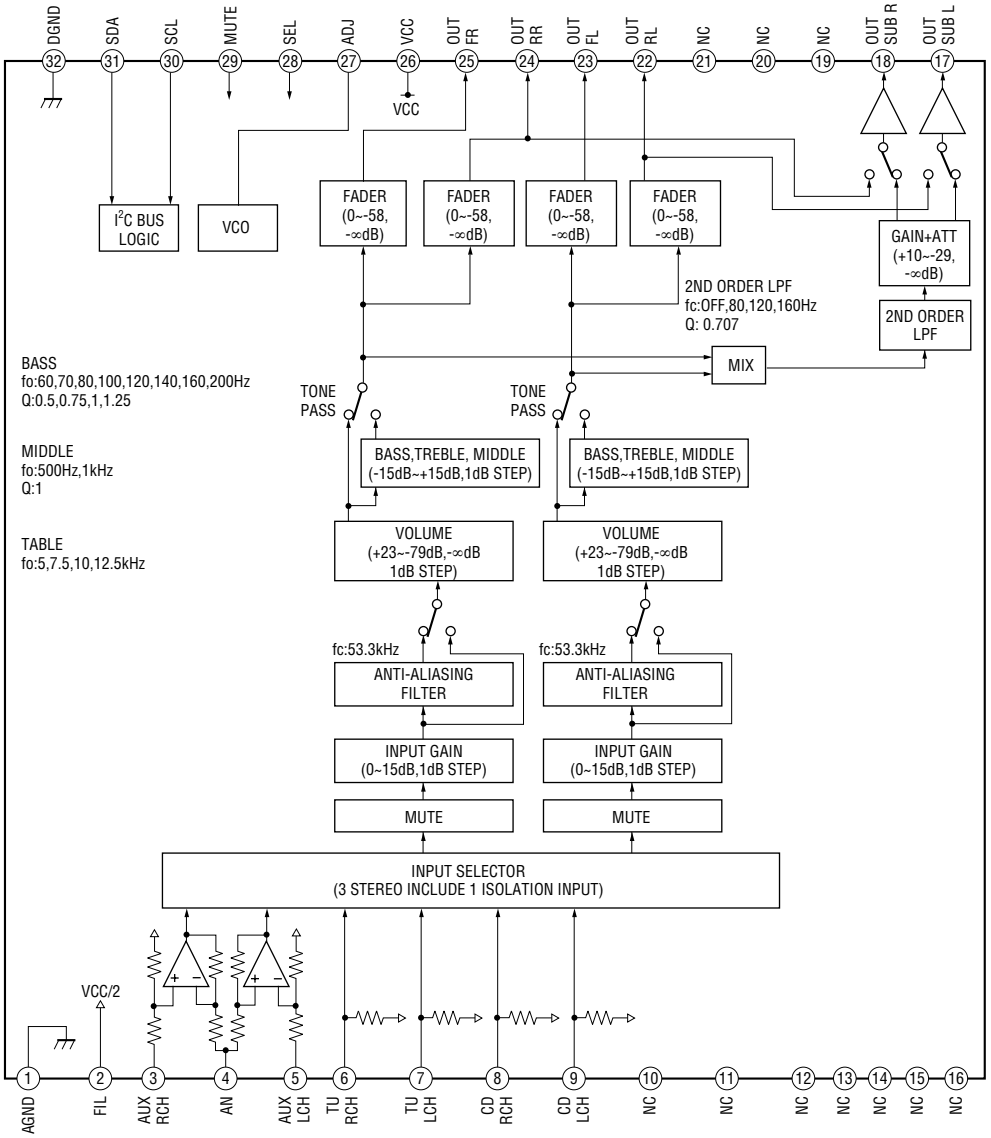
1 V/DIV, 0.1 µsec/DIV

• IC BLOCK DIAGRAMS

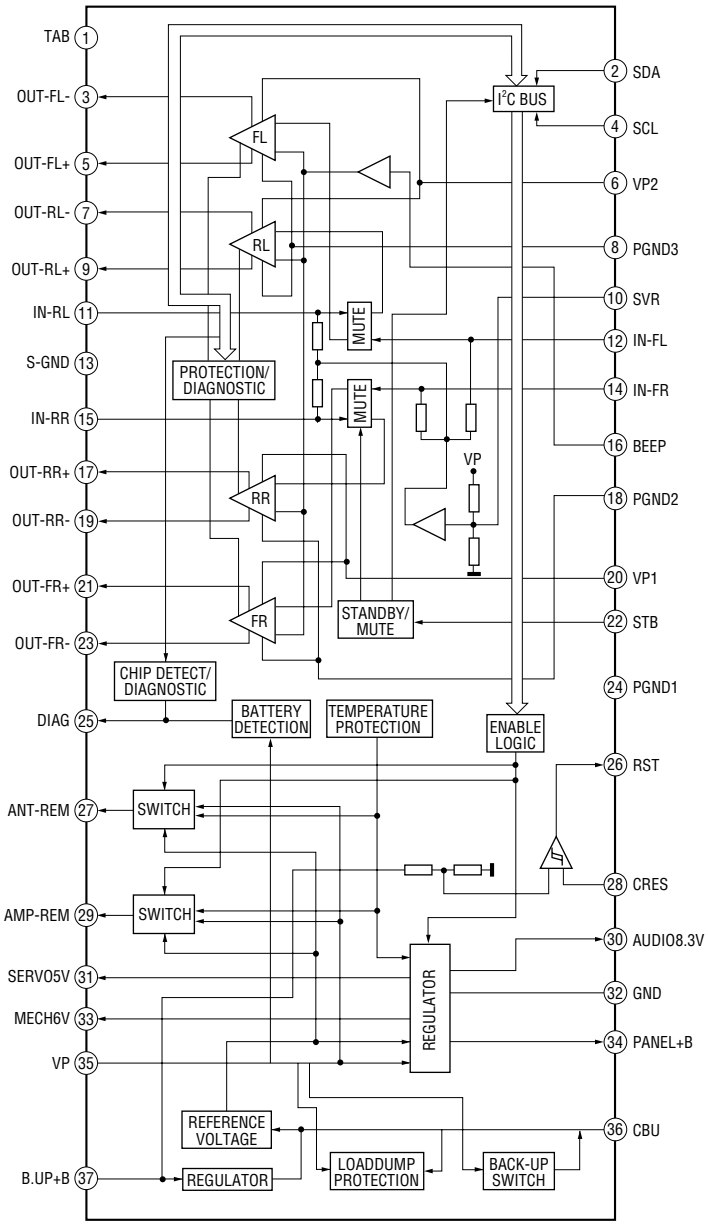
IC2 BA5966FP-FE2 (SERVO Board)



IC401 BD3806AFS-E2 (MAIN Board (1/3))



IC750 TDA8588BJ/N2/R1 (GT10W/GT100/GT150) (MAIN Board (2/3))
IC750 TDA8589BJ/N2/R1 (GT150S) (MAIN Board (2/3))



• IC PIN DESCRIPTIONS

IC1 μPD63712GC-8EU-A (RF AMP, DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	LD	O	Laser diode ON/OFF control signal output (L: laser OFF, H: laser ON)
2	PD	I	Dimmer monitor input from optical pick-up laser diode.
3	PN	I	Not used. (Fixed at L in this set.)
4	AVDD	—	Analog power supply pin (+3.3 V)
5	DGND	—	Ground pin
6	RFOK	O	RFOK signal output to system control IC.
7	INTQ	O	CD text pack synchronization signal output to system control IC.
8	$\overline{RST}$	I	CD reset signal input from system control IC.
9	$\overline{A0}$	I	Command/parameter discrimination signal input from system control IC. (L: command transmission, H: parameter transmission)
10	$\overline{STB}$	I	Data strobe signal input from system control IC.
11	SCK	I	Serial clock signal input from system control IC.
12	SO	O	Serial data signal output to system control IC.
13	SI	I	Serial data signal input from system control IC.
14	DVDD	—	Power supply pin (+3.3 V)
15	DAVDD	—	D/A converter power supply (+) pin (+3.3 V)
16	ROUT	O	Analog audio signal output (R-ch)
17	DAGND	—	Ground pin
18	REGC	—	Capacitor connection pin for SCF regulator.
19	DAGND	—	Ground pin
20	LOUT	O	Analog audio signal output (L-ch)
21	DAVDD	—	D/A converter power supply (+) pin (+3.3 V)
22	XVDD	—	Power supply pin (+3.3 V)
23	XTAL	O	Main system clock output (16.9344 MHz)
24	XTAL	I	Main system clock input (16.9344 MHz)
25	XGND	—	Ground pin
26	DVDD	—	Power supply pin (+3.3 V)
27	C1D1/FZD	O	Not used. (Open)
28	C1D2/TZD	O	Not used. (Open)
29	C2D1/RMUTE	O	CD R-ch data zero detection signal output
30	C2D2/LMUTE	O	CD L-ch data zero detection signal output
31	C2D3/SHOCK/SBSY	O	Not used. (Open)
32	LOCK/FR	O	Not used. (Open)
33	WFCK/MIRR	O	Not used. (Open)
34	RFCK/HOLD	O	Not used. (Open)
35	PLCK	O	Not used. (Open)
36	C16M	O	Not used. (Open)
37	DGND	—	Ground pin
38	TX	O	Not used. (Open)
39	EMPH/RAMOVER	O	Not used. (Open)
40	FLAG	O	Not used. (Open)
41	DVDD	—	Power supply pin (+3.3 V)
42	LIMIT	I	Not used. (Fixed at L in this set.)
43	$\overline{XTALEN}$	I	Oscillation circuit ON/OFF control signal input (L: ON, H: OFF) (Fixed at L in this set.)
44	DGND	—	Ground pin
45	DIN	I	Not used. (Connect to DOUT in this set.)
46	DOUT	O	Not used. (Connect to DIN in this set.)
47	SCKIN	I	Not used. (Connect to SCKO in this set.)
48	SCKO	O	Not used. (Connect to SCKIN in this set.)
49	LRCKIN	I	Not used. (Connect to LRCK in this set.)

Pin No.	Pin Name	I/O	Pin Description
50	LRCK	O	Not used. (Connect to LRCKIN in this set.)
51	DVDD	—	Power supply pin (+3.3 V)
52	FD+	O	Focus servo drive PWM signal output (+)
53	FD–	O	Focus servo drive PWM signal output (–)
54	TD+	O	Tracking servo drive PWM signal output (+)
55	TD–	O	Tracking servo drive PWM signal output (–)
56	SD+	O	Sled servo drive PWM signal output (+)
57	SD–	O	Sled servo drive PWM signal output (–)
58	MD+	O	Spindle servo drive PWM signal output (+)
59	MD–	O	Spindle servo drive PWM signal output (–)
60	DGND	—	Ground pin
61	TESTEN	I	Test setting input (Fixed at L in this set.)
62 to 66	TEST4 to TEST0	I	Test setting input (Fixed at L in this set.)
67	ADGND	—	A/D converter power supply (–) pin
68	EFM	O	EFM signal output
69	ASY	I	EFM comparator reference voltage input
70	ADVDD	—	A/D converter power supply pin (+3.3 V)
71	RFI	I	RF signal input for EFM data growing.
72	EQ2	—	Not used. (Open)
73	EQ1	—	RF amplifier equalizer parts connection pin
74	RF–	I	Not used. (Open)
75	RF2–	I	RF amplifier inversion input
76	AGCO	O	RF signal output after on AGC.
77	AGCI	I	RF AGC signal amplifier input
78	RFO	O	RF signal output before on AGC.
79	ATEST	I	Not used. (Open)
80	C3T	—	Capacitor connection pin for 3T detection.
81	AGND	—	Ground pin
82	A	I	Signal input (A) from optical pick-up detector.
83	C	I	Signal input (C) from optical pick-up detector.
84	B	I	Signal input (B) from optical pick-up detector.
85	D	I	Signal input (D) from optical pick-up detector.
86	F	I	Signal input (F) from optical pick-up detector.
87	E	I	Signal input (E) from optical pick-up detector.
88	VREFIN	I	Reference voltage (+1.65 V) input
89	AVDD	—	Analog power supply pin (+3.3 V)
90	REFOUT	O	Reference voltage (+1.65 V) output
91	REFC	—	Capacitor connection pin for reference voltage output.
92	FE–	I	Focus error signal amplifier inversion input
93	FEO	O	Focus error signal amplifier output
94	ADCIN	I	Not used. (Open)
95	TE–	I	Tracking error signal amplifier inversion input
96	TEO	O	Tracking error signal amplifier before output
97	TE2	O	Tracking error signal amplifier after output
98	TEC	I	Tracking error signal comparator input
99	AGND	—	Ground pin
100	PWMSW	I	Not used. (Fixed at L in this set.)

IC501 MB90487APF-G-155 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL2	I	Destination setting pin
2	AREASEL1	I	Destination setting pin
3	AREASEL0	I	Destination setting pin
4	COL SW	I	Illumination color select signal input
5	BEEP	O	Beep signal output
6	CYRIL SEL	I	Cyril select signal input Not used in this set. (Open)
7	$\overline{\text{NOSE SW}}$	I	Front panel open/close detect signal input Not used in this set.
8	DIAG	I	Power AMP status signal input
9	$\overline{\text{VOL ATT}}$	O	Electronic volume attenuate control signal output
10	NCO	O	Not used. (Open)
11	VSS	—	Ground pin
12	TU ATT	O	Tuner mute control signal output
13	NS MASK	O	Noise mask signal output Not used in this set. (Open)
14	ILLUMI SEL1	I	Illumination voltage setting signal input 1
15	ILLUMI SEL2	I	Illumination voltage setting signal input 2
16, 17	NCO	O	Not used. (Open)
18	CD SI	I	CD servo serial data signal input
19	CD SO	O	CD servo serial data signal output
20	CD SCK	O	CD servo serial clock signal output
21, 22	NCO	O	Not used. (Open)
23	VCC5	—	Power supply pin (+3.3 V)
24	EEP SIO	I/O	EEPROM bus serial data input/output
25	EEP CKO	O	EEPROM bus serial clock output
26	$\overline{\text{AMP STB}}$	O	Power AMP satandby signal output
27	LCD CE	O	LCD driver chip enable signal output
28	LCD SO	O	LCD driver serial data signal output
29	LCD SCK	O	LCD driver serial clock signal output
30	RDS ON	O	RDS ON signal output Not used in this set. (Open)
31	RE IN0	I	Rotary encoder signal input 0
32	RE IN1	I	Rotary encoder signal input 1
33	I2C CKO	O	I2C bus serial clock signal output
34	I2C SIO	I/O	I2C bus serial data signal input/output
35	DAVDD	—	A/D converter power supply pin (+3.3 V)
36	AVRH	—	A/D converter external reference power supply pin (+3.3 V)
37	DAVSS	—	Ground pin
38	QUALITY	I	Noise detect signal input Not used in this set.
39	VSM	I	S-meter voltage detect signal input
40	KEY IN1	I	Key signal input 1
41	KEY IN0	I	Key signal input 0
42	VSS	—	Ground pin
43	RC IN0	I	Rotary commander key signal input
44 to 48	NCO	O	Not used. (open)
49	MD0	I	Operation mode setting pin (Connect to VDD.)
50	MD1	I	Operation mode setting pin (Connect to VDD.)
51	MD2	I	Operation mode setting pin (Connect to VSS.)

Pin No.	Pin Name	I/O	Pin Description
52	KEY ACK	I	Key acknowledgment detect signal input
53	TU ATT IN	I	Tuner mute zero cross detect signal input
54	BU IN	I	Back-up power supply detect signal input
55	CD INTQ	I	CD servo text pack synchronization signal input
56	DAVN	I	RDS data block synchronized detect signal input Not used in this set.
57	NCO	O	Not used. (Open)
58	UNISI	I	SONY bus data signal input Not used in this set.
59	UNI SO	O	SONY bus data signal output Not used in this set. (Open)
60	UNI SCK	O	SONY bus clock signal output Not used in this set.
61	611 SEL	I	Mechanism deck select signal input Not used in this set. (Open)
62	WMA	I	WMA select signal input Not used in this set. (Open)
63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote control signal input Not used in this set.
65 to 67	NCO	O	Not used. (Open)
68	FLASH W	I	Memory mode select signal input Not used in this set.
69, 70	NCO	O	Not used. (Open)
71	$\overline{\text{RC IN1}}$	I	Rotary commander shift key signal input Not used in this set.
72	$\overline{\text{ACC IN}}$	I	Accessory power supply detect signal input
73	$\overline{\text{TEST IN}}$	I	Test mode detect signal input
74	TEL ATT	I	Telephone attenuate detect signal input Not used in this set.
75	NCO	O	Not used. (Open)
76	$\overline{\text{XKEY ON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	CPU reset signal input
78	NCO	O	Not used. (Open)
79	XOUT	O	Sub-clock output (32.768 kHz)
80	XIN	I	Sub-clock input (32.768 kHz)
81	VSS1	—	Ground pin
82	OSC IN	I	Main-clock input (3.68 MHz)
83	OSC OUT	O	Main-clock output (3.68 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	DEMOSEL	I	DEMO select signal input
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUS ON}}$	O	Bus on signal output
88	$\overline{\text{SYS RST}}$	O	System reset signal output
89	CD RFOK	O	Shutter open information signal output to CD mechanism
90	CD RST	O	CD servo reset signal output
91	CD A0	O	CD servo command/parameter signal output
92	CD STB	O	CD servo data strob signal output
93	CD MUTE R	I	CD mechanism zero cross mute detect signal input R
94	CD MUTE L	I	CD mechanism zero cross mute detect signal input L
95	CD INSW	I	Cd mechanism disc in switch detect signal input
96	CD SELFSW	I	CD self switch signal input
97	CD LM LO	O	CD mechanism loading motor (+6 V) control signal output
98	CD LM EJ	O	CD mechanism eject motor control signal output
99	CD DSW	I	CD mechanism disc in switch detect signal input
100	CD LIMIT	I	CD mechanism limit switch detect signal input

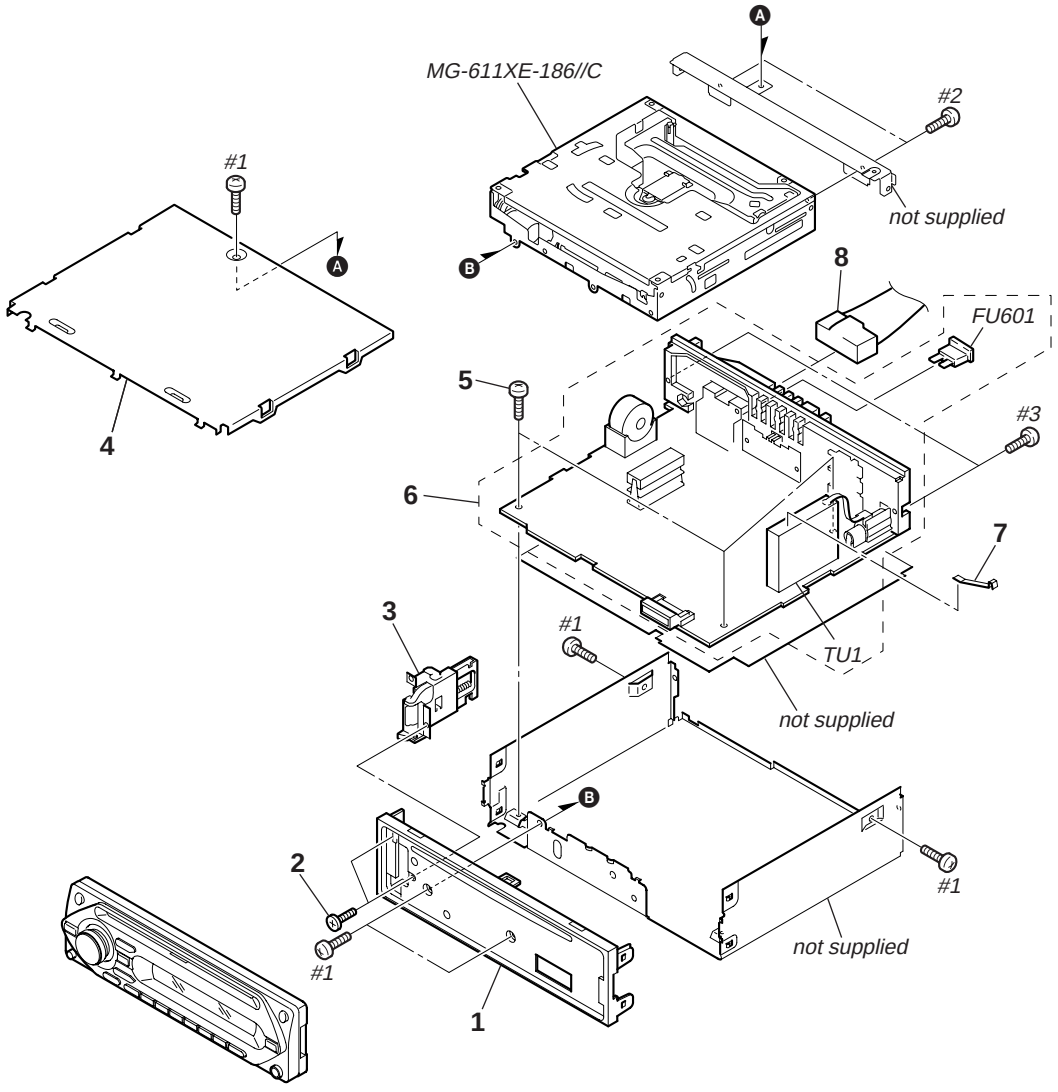
SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

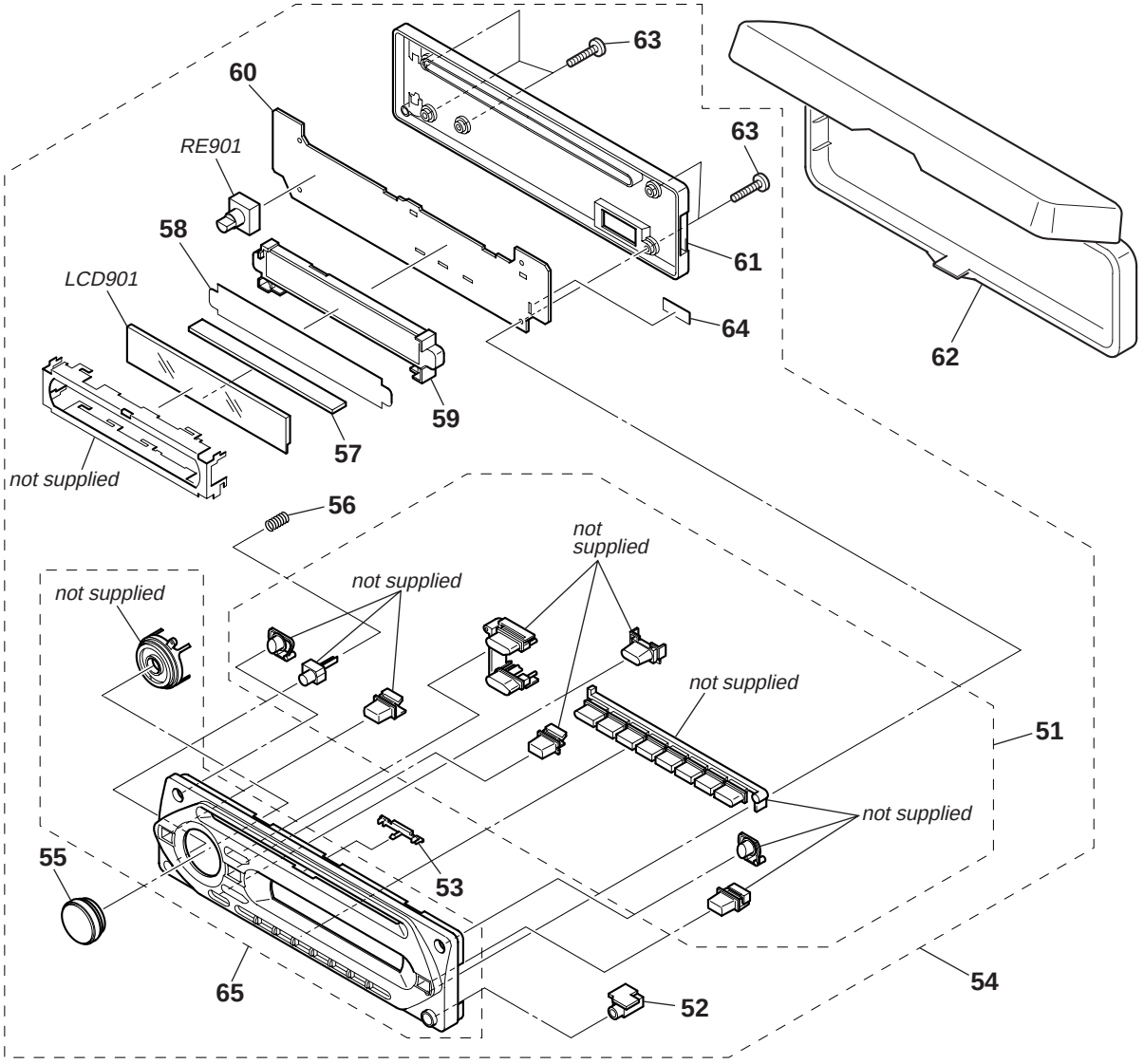
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2067-566-1	PANEL ASSY, SUB	
2	2-583-939-01	SCREW (+B 2X4)	
3	X-2055-203-2	LOCK ASSY (S)	
4	3-246-006-31	COVER	
5	2-583-940-01	SCREW +BTT 2.6X5	
6	A-1134-204-A	MAIN BOARD, COMPLETE (GT10W/GT100)	
6	A-1134-470-A	MAIN BOARD, COMPLETE (GT150)	
6	A-1147-203-A	MAIN BOARD, COMPLETE (GT150S)	
7	2-345-298-01	PLATE (TU), GROUND	
8	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	

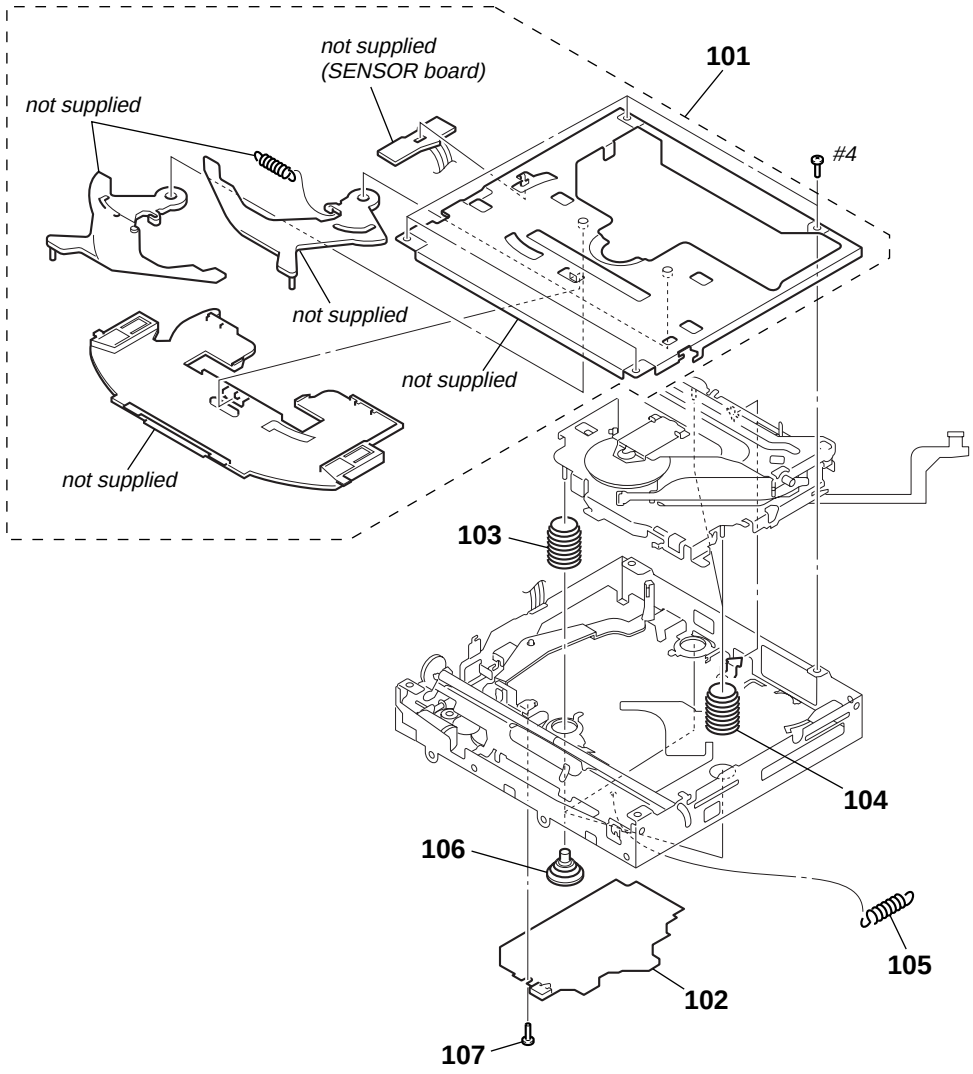
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2067-579-1	BUTTON ASSY (S) (GT10W/GT100/GT150)	
51	X-2102-530-1	BUTTON ASSY (S) (GT150S)	
52	A-1134-211-A	JACK BOARD, COMPLETE	
53	2-631-526-01	PLATE (CD), LIGHT GUIDE	
54	A-1134-207-A	PANEL ASSY, FRONT (GT100)	
54	A-1134-242-A	PANEL ASSY, FRONT (GT10W)	
54	A-1134-473-A	PANEL ASSY, FRONT (GT150)	
54	A-1134-487-A	PANEL ASSY, FRONT (GT150S)	
55	X-2102-729-1	KNOB (VOL) (SV) ASSY	
56	2-349-626-01	SPRING (RELEASE)	
57	1-780-199-11	CONDUCTIVE BOARD, CONNECTION	
58	2-634-438-01	ILLUMINATOR (LCD)	
59	X-2067-569-1	HOLDER (LCD) ASSY	
60	A-1134-209-A	KEY BOARD, COMPLETE (GT100)	
60	A-1134-244-A	KEY BOARD, COMPLETE (GT10W)	
60	A-1134-246-A	KEY BOARD, COMPLETE (GT150/GT150S)	

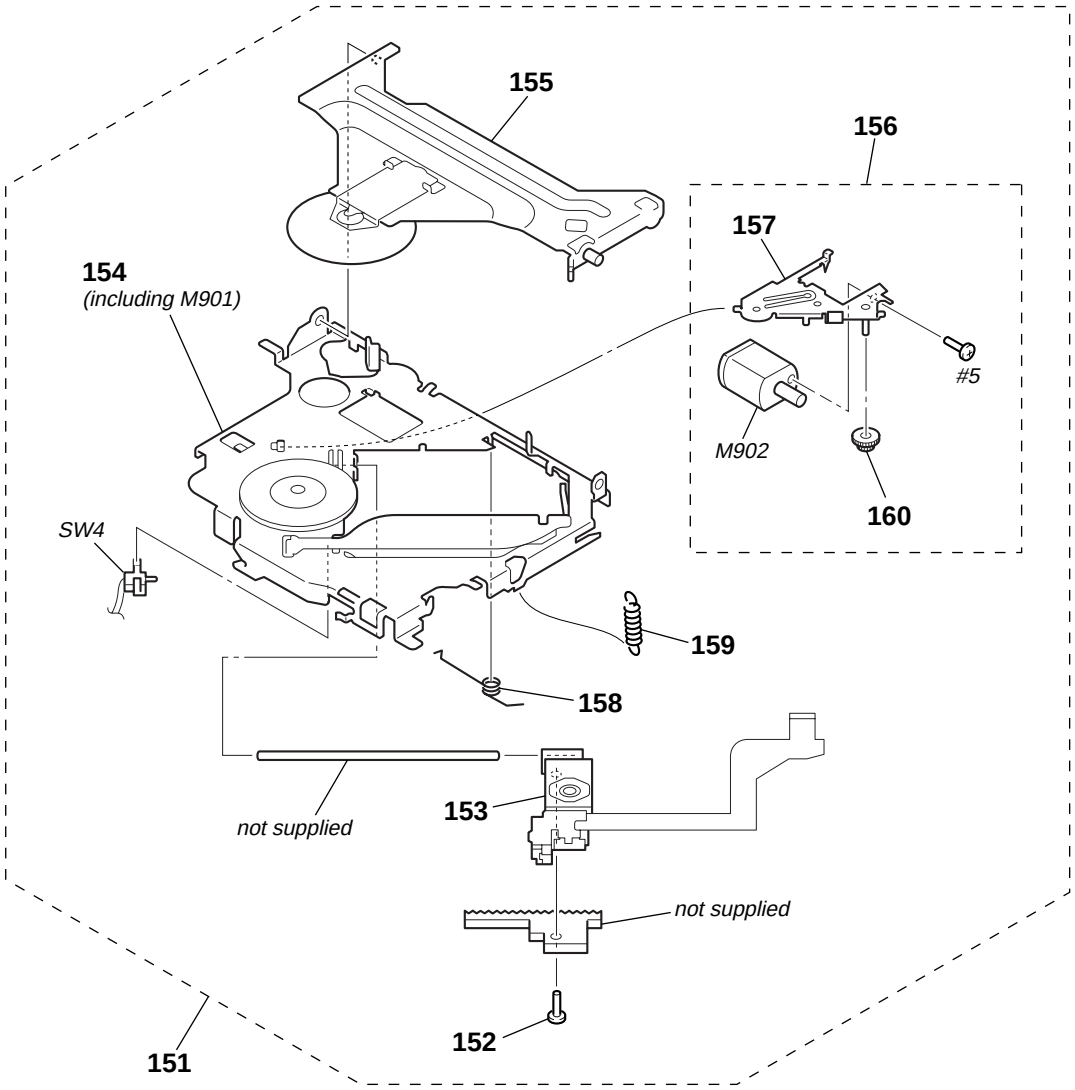
Ref. No.	Part No.	Description	Remark
61	2-631-511-01	PANEL, FRONT BACK	
62	X-2024-133-3	CASE ASSY (for FRONT PANEL) (EXCEPT US)	
63	3-250-543-91	SCREW (+B P-TITE M2)	
64	3-040-315-01	COVER (AC OUT)	
65	X-2067-570-1	PANEL SUB ASSY, FRONT (GT100)	
65	X-2067-571-1	PANEL SUB ASSY, FRONT (GT100W)	
65	X-2067-572-1	PANEL SUB ASSY, FRONT (GT150)	
65	X-2102-528-1	PANEL SUB ASSY, FRONT (GT150S)	
66	3-251-320-01	EMBLEM (No. 2.5), SONY	
LCD901	1-805-919-11	DISPLAY PANEL, LIQUID CRYSTAL (GT150/GT150S)	
LCD901	1-805-920-11	DISPLAY PANEL, LIQUID CRYSTAL (GT10W/GT100)	
RE901	1-478-474-12	ENCODER, ROTARY (PUSH SELECT/VOLUME)	

4-3. CD MECHANISM SECTION (1)
(MG-611XE-186//C)



Ref. No.	Part No.	Description	Remark
101	A-1088-624-A	CHASSIS (T) SUB ASSY	
102	A-1083-497-A	SERVO BOARD, COMPLETE	
103	2-345-865-11	SPRING (DAMPER), COMPRESSION (BLACK)	
104	2-345-865-01	SPRING (DAMPER), COMPRESSION (NATURAL)	
105	2-345-767-21	SPRING (KF60), TENSION	
106	3-253-748-11	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

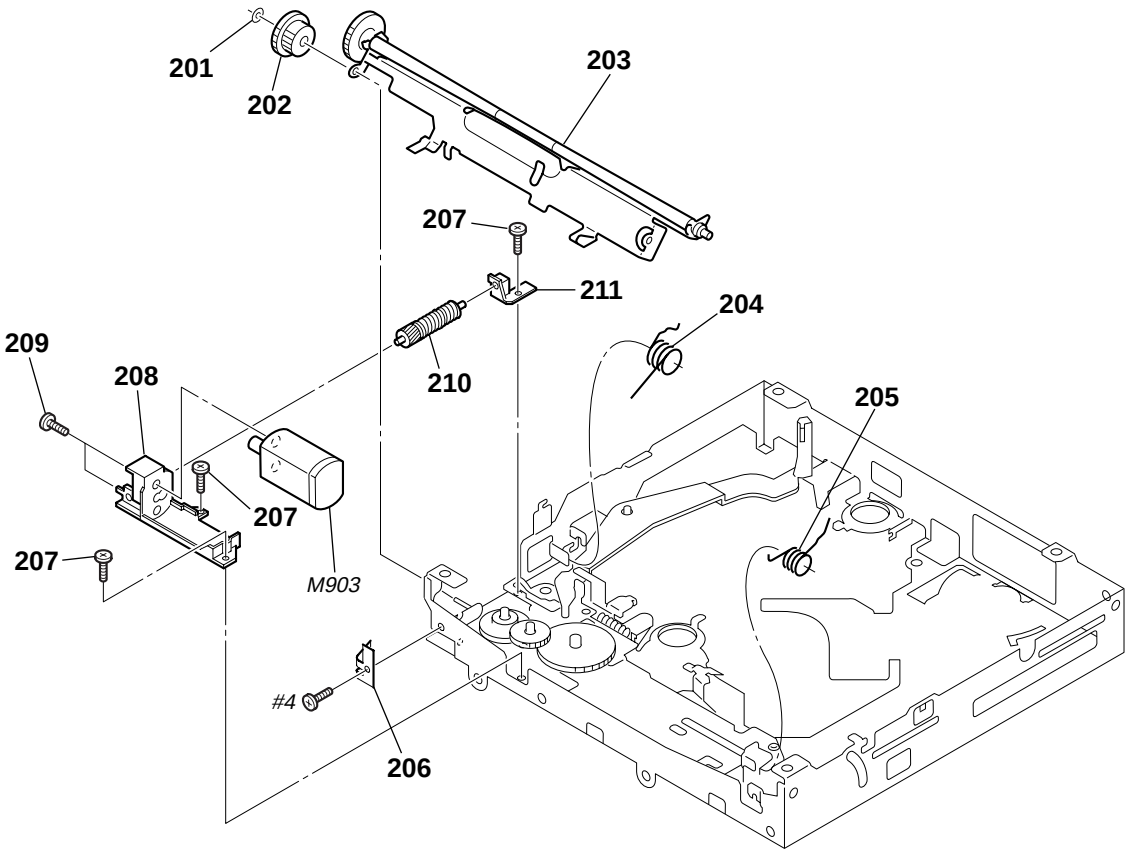
4-4. CD MECHANISM SECTION (2)
(MG-611XE-186//C)



Ref. No.	Part No.	Description	Remark
151	A-1088-612-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1088-615-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-1088-616-A	ARM SUB ASSY, CHUCKING	
156	A-1088-613-A	LEVER (SL) SUB ASSY	
157	X-2024-784-3	LEVER (SL) ASSY	

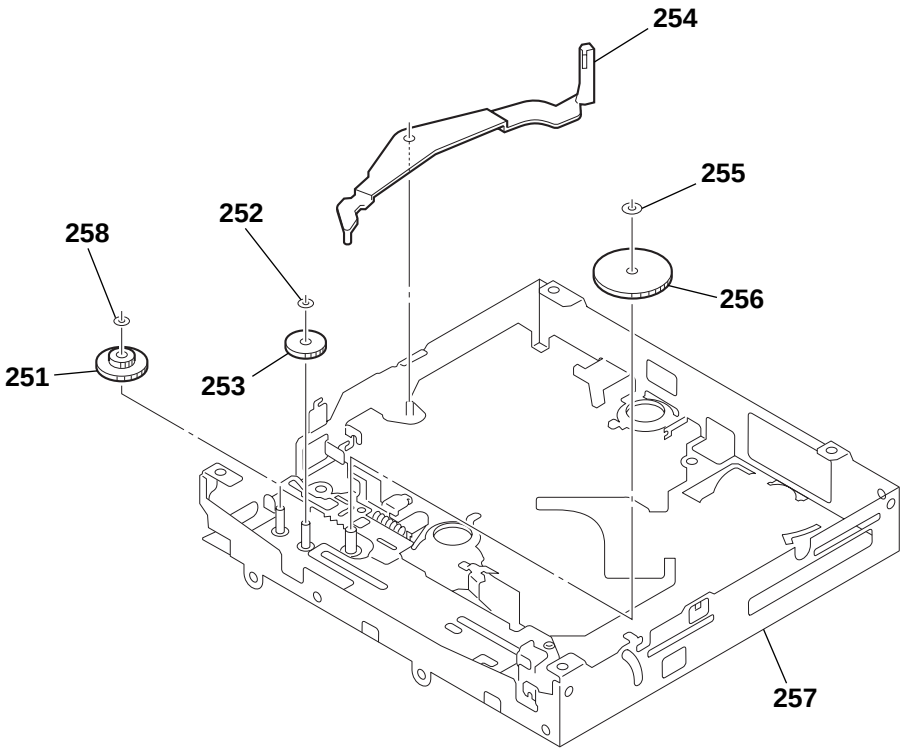
Ref. No.	Part No.	Description	Remark
158	3-261-959-21	SPRING (SL), TORSION	
159	3-253-736-21	SPRING (CHKG), TENSION	
160	3-253-742-21	WHEEL (SL), WORM	
M902	A-1088-614-A	MOTOR ASSY, SL (SLED)	
SW4	1-786-339-11	SWITCH (M) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3)
(MG-611XE-186//C)



Ref. No.	Part No.	Description	Remark
201	3-262-755-11	WASHER (1.1-2.5)	
202	2-186-699-21	GEAR (RA1)	
203	A-1088-618-A	ARM ASSY, ROLLER	
204	3-259-455-21	SPRING (RAL)	
205	3-253-713-21	SPRING (RAR)	
206	3-259-469-21	SPRING (LE), LEAF	
207	2-134-636-51	SCREW (M1.7X2.5)	
208	2-186-696-21	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1088-623-A	GEAR (LE) ASSY	
211	2-186-697-21	BEARING (LEB-N)	
M903	A-1088-622-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611XE-186//C)



Ref. No.	Part No.	Description	Remark
251	2-186-700-21	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-23	GEAR (LE1)	
254	3-253-755-21	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	2-590-545-21	GEAR (LE2-M)	
257	A-1088-620-A	CHASSIS (M) BLOCK ASSY	
258	3-262-755-11	WASHER (1.1-2.5)	

SECTION 5
ELECTRICAL PARTS LIST

JACK KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA..: µPA..
  uPB.. : µPB.. uPC..: µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1134-211-A	JACK BOARD, COMPLETE			
		**********			
		< JACK >			
J901	1-819-732-11	JACK (SMALL TYPE) (DIA. 3.5) (AUX)			
**********					
	A-1134-209-A	KEY BOARD, COMPLETE (GT100)			
	A-1134-244-A	KEY BOARD, COMPLETE (GT10W)			
	A-1134-246-A	KEY BOARD, COMPLETE (GT150/GT150S)			
		**********			
		< CAPACITOR >			
C921	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C922	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C981	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C985	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C986	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CN901	1-819-758-11	PLUG, CONNECTOR 15P			
		< DIODE >			
D901	6-500-886-01	DIODE RSA6.1ENTR			
D903	6-501-180-01	DIODE UDZW-TE17-18B			
D981	6-501-167-01	DIODE UDZW-TE17-5.1B			
D982	6-501-193-01	DIODE 1SS355WTE-17			
		< JUMPER RESISTOR >			
FB901	1-216-864-11	SHORT CHIP	0		
FB902	1-216-864-11	SHORT CHIP	0		
FB903	1-216-295-11	SHORT CHIP	0		
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
LED932	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT)	
LED941	6-500-450-01	LED CL-195SR-CD-T (RING ILLUMINATION)	(GT100/GT150/GT150S)
LED941	6-500-510-01	LED CL-195PG-CD-T (RING ILLUMINATION)	(GT10W)
LED942	6-500-450-01	LED CL-195SR-CD-T (RING ILLUMINATION)	(GT100/GT150/GT150S)
LED942	6-500-510-01	LED CL-195PG-CD-T (RING ILLUMINATION)	(GT10W)
LED943	6-500-450-01	LED CL-195SR-CD-T (RING ILLUMINATION)	(GT100/GT150/GT150S)
LED943	6-500-510-01	LED CL-195PG-CD-T (RING ILLUMINATION)	(GT10W)
LED944	6-500-450-01	LED CL-195SR-CD-T (RING ILLUMINATION)	(GT100/GT150/GT150S)
LED944	6-500-510-01	LED CL-195PG-CD-T (RING ILLUMINATION)	(GT10W)
LED951	6-500-450-01	LED CL-195SR-CD-T (DISC SLOT)	(GT100/GT150/GT150S)
LED951	6-500-510-01	LED CL-195PG-CD-T (DISC SLOT) (GT10W)	
		< SWITCH >	
LSW901	1-786-805-11	SWITCH, TACTILE (WITH LED) (⏏)	(GT100/GT150/GT150S)
LSW901	1-786-806-11	SWITCH, TACTILE (WITH LED) (⏏) (GT10W)	
LSW902	1-786-805-11	SWITCH, TACTILE (WITH LED) (OFF)	(GT100/GT150/GT150S)
LSW902	1-786-806-11	SWITCH, TACTILE (WITH LED) (OFF) (GT10W)	
LSW903	1-786-805-11	SWITCH, TACTILE (WITH LED) (SOURCE)	(GT100/GT150/GT150S)
LSW903	1-786-806-11	SWITCH, TACTILE (WITH LED) (SOURCE)	(GT10W)
LSW908	1-786-805-11	SWITCH, TACTILE (WITH LED) (EQ3)	(GT100/GT150/GT150S)
LSW908	1-786-806-11	SWITCH, TACTILE (WITH LED) (EQ3) (GT10W)	
LSW909	1-786-805-11	SWITCH, TACTILE (WITH LED) (▶▶ ▶▶I SEEK +) (GT100/GT150/GT150S)	
LSW909	1-786-806-11	SWITCH, TACTILE (WITH LED) (▶▶ ▶▶I SEEK +) (GT10W)	
LSW910	1-786-805-11	SWITCH, TACTILE (WITH LED) (I◀◀ ◀◀ SEEK –) (GT100/GT150/GT150S)	
LSW910	1-786-806-11	SWITCH, TACTILE (WITH LED) (I◀◀ ◀◀ SEEK –) (GT10W)	

KEY

Ref. No.	Part No.	Description			Remark
LSW911	1-786-805-11	SWITCH, TACTILE (WITH LED) (BTM)			(GT100/GT150/GT150S)
LSW911	1-786-806-11	SWITCH, TACTILE (WITH LED) (BTM) (GT10W)			
LSW912	1-786-805-11	SWITCH, TACTILE (WITH LED) (MODE)			(GT100/GT150/GT150S)
LSW912	1-786-806-11	SWITCH, TACTILE (WITH LED) (MODE)			(GT10W)
LSW913	1-786-805-11	SWITCH, TACTILE (WITH LED) (1)			(GT100/GT150/GT150S)
LSW913	1-786-806-11	SWITCH, TACTILE (WITH LED) (1) (GT10W)			
LSW914	1-786-805-11	SWITCH, TACTILE (WITH LED) (2)			(GT100/GT150/GT150S)
LSW914	1-786-806-11	SWITCH, TACTILE (WITH LED) (2) (GT10W)			
LSW915	1-786-805-11	SWITCH, TACTILE (WITH LED) (3/REP)			(GT100/GT150/GT150S)
LSW915	1-786-806-11	SWITCH, TACTILE (WITH LED) (3/REP)			(GT10W)
LSW916	1-786-805-11	SWITCH, TACTILE (WITH LED) (4/SHUF)			(GT100/GT150/GT150S)
LSW916	1-786-806-11	SWITCH, TACTILE (WITH LED) (4/SHUF)			(GT10W)
LSW917	1-786-805-11	SWITCH, TACTILE (WITH LED) (5)			(GT100/GT150/GT150S)
LSW917	1-786-806-11	SWITCH, TACTILE (WITH LED) (5) (GT10W)			
LSW918	1-786-805-11	SWITCH, TACTILE (WITH LED) (6)			(GT100/GT150/GT150S)
LSW918	1-786-806-11	SWITCH, TACTILE (WITH LED) (6) (GT10W)			
LSW919	1-786-805-11	SWITCH, TACTILE (WITH LED) (SENS)			(GT100/GT150/GT150S)
LSW919	1-786-806-11	SWITCH, TACTILE (WITH LED) (SENS)			(GT10W)
LSW920	1-786-805-11	SWITCH, TACTILE (WITH LED) (DSPL/DIM)			(GT100/GT150/GT150S)
LSW920	1-786-806-11	SWITCH, TACTILE (WITH LED) (DSPL/DIM)			(GT10W)
		< TRANSISTOR >			
Q931	8-729-027-44	TRANSISTOR DTC114TKA-T146			
Q932	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-819-11	METAL CHIP	680	5%	1/10W
R907	1-216-819-11	METAL CHIP	680	5%	1/10W
R908	1-216-819-11	METAL CHIP	680	5%	1/10W
R909	1-216-821-11	METAL CHIP	1K	5%	1/10W
R910	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R911	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R912	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R913	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R914	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R915	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R916	1-216-833-11	METAL CHIP	10K	5%	1/10W
R917	1-216-835-11	METAL CHIP	15K	5%	1/10W
R918	1-216-837-11	METAL CHIP	22K	5%	1/10W
R921	1-216-025-11	RES-CHIP	100	5%	1/10W
R922	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R931	1-216-812-11	METAL CHIP	180	5%	1/10W
R932	1-216-812-11	METAL CHIP	180	5%	1/10W
R933	1-216-812-11	METAL CHIP	180	5%	1/10W
R934	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R941	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R941	1-216-813-11	METAL CHIP	220	5%	1/10W (GT100/GT150/GT150S)
R942	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R942	1-216-813-11	METAL CHIP	220	5%	1/10W (GT100/GT150/GT150S)
R943	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R943	1-216-811-11	METAL CHIP	150	5%	1/10W (GT100/GT150/GT150S)
R944	1-216-811-11	METAL CHIP	150	5%	1/10W
R945	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R945	1-216-811-11	METAL CHIP	150	5%	1/10W (GT100/GT150/GT150S)
R946	1-216-807-11	METAL CHIP	68	5%	1/10W (GT10W)
R946	1-216-809-11	METAL CHIP	100	5%	1/10W (GT100/GT150/GT150S)
R947	1-216-807-11	METAL CHIP	68	5%	1/10W (GT10W)
R947	1-216-809-11	METAL CHIP	100	5%	1/10W (GT100/GT150/GT150S)
R948	1-216-811-11	METAL CHIP	150	5%	1/10W
R949	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R949	1-216-812-11	METAL CHIP	180	5%	1/10W (GT100/GT150/GT150S)
R950	1-216-807-11	METAL CHIP	68	5%	1/10W (GT10W)
R950	1-216-809-11	METAL CHIP	100	5%	1/10W (GT100/GT150/GT150S)
R951	1-216-807-11	METAL CHIP	68	5%	1/10W (GT10W)
R951	1-216-809-11	METAL CHIP	100	5%	1/10W (GT100/GT150/GT150S)
R952	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R952	1-216-811-11	METAL CHIP	150	5%	1/10W (GT100/GT150/GT150S)
R953	1-216-811-11	METAL CHIP	150	5%	1/10W
R954	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R954	1-216-811-11	METAL CHIP	150	5%	1/10W (GT100/GT150/GT150S)
R955	1-216-811-11	METAL CHIP	150	5%	1/10W
R956	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R956	1-216-812-11	METAL CHIP	180	5%	1/10W (GT100/GT150/GT150S)
R957	1-216-811-11	METAL CHIP	150	5%	1/10W
R958	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R958	1-216-812-11	METAL CHIP	180	5%	1/10W (GT100/GT150/GT150S)
R961	1-216-811-11	METAL CHIP	150	5%	1/10W

KEY MAIN

Ref. No.	Part No.	Description			Remark
R962	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R962	1-216-812-11	METAL CHIP	180	5%	1/10W (GT100/GT150/GT150S)
R963	1-216-811-11	METAL CHIP	150	5%	1/10W
R964	1-216-810-11	METAL CHIP	120	5%	1/10W (GT10W)
R964	1-216-812-11	METAL CHIP	180	5%	1/10W (GT100/GT150/GT150S)
R974	1-216-864-11	SHORT CHIP	0		
R976	1-216-864-11	SHORT CHIP	0		
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-857-11	METAL CHIP	1M	5%	1/10W
R991	1-216-864-11	SHORT CHIP	0		
		< ROTARY ENCODER >			
RE901	1-478-474-12	ENCODER, ROTARY (PUSH SELECT/VOLUME)			
**********					
	A-1134-204-A	MAIN BOARD, COMPLETE (GT10W/GT100)			
	A-1134-470-A	MAIN BOARD, COMPLETE (GT150)			
	A-1147-203-A	MAIN BOARD, COMPLETE (GT150S)			
		**********			
	7-621-284-40	SCREW +P 2.6X10			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C4	1-126-947-11	ELECT	47uF	20%	35V
C5	1-126-947-11	ELECT	47uF	20%	35V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-128-551-11	ELECT	22uF	20%	63V
C302	1-104-665-11	ELECT	100uF	20%	25V
C303	1-128-551-11	ELECT	22uF	20%	63V
C305	1-104-665-11	ELECT	100uF	20%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-960-11	ELECT	1uF	20%	50V
C407	1-126-960-11	ELECT	1uF	20%	50V
C410	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C411	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C412	1-126-934-11	ELECT	220uF	20%	16V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C435	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C445	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C455	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C465	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-964-11	ELECT	10uF	20%	50V
C474	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C479	1-126-947-11	ELECT	47uF	20%	35V
C481	1-126-964-11	ELECT	10uF	20%	50V
C484	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-104-665-11	ELECT	100uF	20%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-216-864-11	SHORT CHIP	0		
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C601	1-131-868-81	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-916-11	ELECT	1000uF	20%	6.3V
C623	1-126-916-11	ELECT	1000uF	20%	6.3V
C631	1-126-960-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-126-961-11	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C758	1-126-964-11	ELECT	10uF	20%	50V
C763	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C770	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C771	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C901	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C902	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C903	1-126-961-11	ELECT	2.2uF	20%	50V
C905	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

MAIN

Ref. No.	Part No.	Description	Remark
C917	1-163-017-00	CERAMIC CHIP 0.0047uF 10% 50V	
C918	1-163-017-00	CERAMIC CHIP 0.0047uF 10% 50V	
		< CONNECTOR >	
CN601	1-774-701-21	PIN, CONNECTOR 16P	
CN701	1-819-773-11	SOCKET, CONNECTOR 15P	
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P	
		< DIODE >	
D1	6-501-168-01	DIODE UDZW-TE17-5.6B	
D479	6-501-193-01	DIODE 1SS355WTE-17	
D503	6-501-193-01	DIODE 1SS355WTE-17	
D580	6-501-171-01	DIODE UDZW-TE17-7.5B	
D581	6-501-180-01	DIODE UDZW-TE17-18B	
D601	8-719-049-38	DIODE 1N5404TU	
D609	6-501-170-01	DIODE UDZW-TE17-6.8B	
D617	6-501-180-01	DIODE UDZW-TE17-18B	
D719	6-501-180-01	DIODE UDZW-TE17-18B	
D751	6-500-522-01	DIODE 10EDB40-TA1B2	
D752	6-500-522-01	DIODE 10EDB40-TA1B2	
D753	6-500-522-01	DIODE 10EDB40-TA1B2	
D754	6-500-522-01	DIODE 10EDB40-TA1B2	
D755	6-500-522-01	DIODE 10EDB40-TA1B2	
D756	6-500-522-01	DIODE 10EDB40-TA1B2	
D757	6-500-522-01	DIODE 10EDB40-TA1B2	
D758	6-500-522-01	DIODE 10EDB40-TA1B2	
D759	6-500-522-01	DIODE 10EDB40-TA1B2	
D760	6-500-522-01	DIODE 10EDB40-TA1B2	
D761	6-500-522-01	DIODE 10EDB40-TA1B2	
D762	6-500-522-01	DIODE 10EDB40-TA1B2	
D903	6-501-170-01	DIODE UDZW-TE17-6.8B	
		< FERRITE BEAD >	
FB1	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB301	1-216-864-11	SHORT CHIP 0	
FB302	1-216-864-11	SHORT CHIP 0	
FB303	1-469-876-11	INDUCTOR, FERRITE BEAD	
FB304	1-216-295-11	SHORT CHIP 0	
FB305	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB306	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB307	1-216-864-11	SHORT CHIP 0	
FB310	1-216-864-11	SHORT CHIP 0	
FB311	1-216-864-11	SHORT CHIP 0	
FB410	1-216-864-11	SHORT CHIP 0	
FB411	1-216-864-11	SHORT CHIP 0	
FB501	1-216-295-11	SHORT CHIP 0	
FB603	1-216-295-11	SHORT CHIP 0	
FB604	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB605	1-216-864-11	SHORT CHIP 0	
FB606	1-216-864-11	SHORT CHIP 0	
		< FUSE >	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
		< IC >	
IC401	6-708-880-01	IC BD3806AFS-E2	

Ref. No.	Part No.	Description	Remark
IC501	6-806-030-01	IC MB90488BPF-G-154E1	
IC602	8-759-659-13	IC PST3428UL	
IC750	6-705-360-02	IC TDA8588BJ/N2/R1 (GT10W/GT100/GT150)	
IC750	6-705-363-02	IC TDA8589BJ/N2/R1 (GT150S)	
IC901	8-759-681-42	IC NJM12902V(TE2)	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)	
		< JUMPER RESISTOR >	
JC1	1-216-864-11	SHORT CHIP 0	
JC501	1-216-864-11	SHORT CHIP 0	
JC504	1-216-864-11	SHORT CHIP 0	
JC534	1-216-864-11	SHORT CHIP 0	
JC536	1-216-864-11	SHORT CHIP 0	
JC681	1-216-864-11	SHORT CHIP 0	
JC753	1-216-296-11	SHORT CHIP 0	
JC754	1-216-296-11	SHORT CHIP 0	
JC755	1-216-296-11	SHORT CHIP 0	
JC756	1-216-864-11	SHORT CHIP 0	
JC795	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L1	1-469-844-11	INDUCTOR 2.2uH	
L301	1-216-295-11	SHORT CHIP 0	
L501	1-216-295-11	SHORT CHIP 0	
L601	1-456-617-11	COIL, CHOKE	
		< TRANSISTOR >	
Q1	6-551-431-01	TRANSISTOR 2SC6027T100	
Q431	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q441	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q451	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q461	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q471	6-551-392-01	TRANSISTOR RT6N140C-TP-1	
Q478	1-801-806-11	TRANSISTOR DTC144EKA	
Q479	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q481	6-551-392-01	TRANSISTOR RT6N140C-TP-1	
Q580	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q581	1-801-806-11	TRANSISTOR DTC144EKA	
Q582	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q631	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q664	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< RESISTOR >	
R1	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R2	1-414-595-11	INDUCTOR, FERRITE BEAD	
R3	1-414-595-11	INDUCTOR, FERRITE BEAD	
R4	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R5	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R12	1-414-595-11	INDUCTOR, FERRITE BEAD	
R13	1-414-595-11	INDUCTOR, FERRITE BEAD	
R301	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R302	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R401	1-216-797-11	METAL CHIP 10 5% 1/10W	
R405	1-218-881-11	METAL CHIP 27K 0.5% 1/10W	

Ref. No.	Part No.	Description			Remark
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
					(GT150/GT150S)
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-821-11	METAL CHIP	1K	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R441	1-216-821-11	METAL CHIP	1K	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
					(GT10W/GT100)
R451	1-216-821-11	METAL CHIP	1K	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R461	1-216-821-11	METAL CHIP	1K	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-841-11	METAL CHIP	47K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R502	1-216-821-11	METAL CHIP	1K	5%	1/10W
R503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W
R508	1-216-864-11	SHORT CHIP	0		
R509	1-216-812-11	METAL CHIP	180	5%	1/10W
R510	1-216-821-11	METAL CHIP	1K	5%	1/10W
R511	1-216-821-11	METAL CHIP	1K	5%	1/10W
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R515	1-247-807-31	CARBON	100	5%	1/4W
R516	1-247-807-31	CARBON	100	5%	1/4W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R523	1-216-821-11	METAL CHIP	1K	5%	1/10W
R524	1-216-821-11	METAL CHIP	1K	5%	1/10W
R525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R526	1-216-809-11	METAL CHIP	100	5%	1/10W
R527	1-216-821-11	METAL CHIP	1K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-821-11	METAL CHIP	1K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-845-11	METAL CHIP	100K	5%	1/10W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT150/GT150S)
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT10W/GT100)
R539	1-216-864-11	SHORT CHIP	0		
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT150/GT150S)
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT150/GT150S)
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT10W/GT100)
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R559	1-216-845-11	METAL CHIP	100K	5%	1/10W
R560	1-216-845-11	METAL CHIP	100K	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R568	1-216-821-11	METAL CHIP	1K	5%	1/10W
R570	1-216-817-11	METAL CHIP	470	5%	1/10W
R571	1-216-845-11	METAL CHIP	100K	5%	1/10W
R572	1-216-809-11	METAL CHIP	100	5%	1/10W
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-841-11	METAL CHIP	47K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R661	1-216-821-11	METAL CHIP	1K	5%	1/10W
R662	1-216-845-11	METAL CHIP	100K	5%	1/10W
R663	1-216-821-11	METAL CHIP	1K	5%	1/10W
R664	1-216-845-11	METAL CHIP	100K	5%	1/10W
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-864-11	SHORT CHIP	0		
R680	1-216-821-11	METAL CHIP	1K	5%	1/10W
R681	1-216-821-11	METAL CHIP	1K	5%	1/10W
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
R757	1-216-864-11	SHORT CHIP	0		
R901	1-216-817-11	METAL CHIP	470	5%	1/10W
R902	1-216-817-11	METAL CHIP	470	5%	1/10W
R903	1-216-834-11	METAL CHIP	12K	5%	1/10W
R904	1-216-834-11	METAL CHIP	12K	5%	1/10W
R905	1-216-841-11	METAL CHIP	47K	5%	1/10W

MAIN **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
R906	1-216-841-11	METAL CHIP	47K	5%	1/10W
R907	1-216-845-11	METAL CHIP	100K	5%	1/10W
R910	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R911	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R912	1-216-864-11	SHORT CHIP	0		
R913	1-216-864-11	SHORT CHIP	0		
R914	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECTOR) (GT150/GT150S)			
S702	1-786-826-11	SWITCH, TACTILE (RESET)			
		< TUNER UNIT >			
TU1	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1083-497-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-100-381-11	ELECT CHIP	10uF	20%	16V
C7	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C13	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C17	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C18	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C19	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C25	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C26	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C27	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C28	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C29	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C30	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C31	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C32	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C34	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C35	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C36	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C38	1-104-609-11	ELECT CHIP	100uF	20%	4V
C39	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C70	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C71	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C72	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C73	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C74	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C75	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C76	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C77	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C78	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C79	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
		< CONNECTOR >			
CN1	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
CN2	1-815-016-61	CONNECTOR, FFC/FPC (ZIF) 16P			
		< FERRITE BEAD >			
FB1	1-216-864-11	SHORT CHIP	0		
FB2	1-414-760-21	FERRITE, EMI (SMD) (1608)			
FB3	1-414-760-21	FERRITE, EMI (SMD) (1608)			
		< IC >			
IC1	6-703-699-01	IC uPD63712GC-8EU-A			
IC2	6-705-002-01	IC BA5966FP-FE2			
		< FERRITE BEAD >			
JR40	1-414-760-21	FERRITE, EMI (SMD) (1608)			
JR41	1-414-760-21	FERRITE, EMI (SMD) (1608)			
JR90	1-414-760-21	FERRITE, EMI (SMD) (1608)			
JR91	1-414-760-21	FERRITE, EMI (SMD) (1608)			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R1	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2	1-216-809-11	METAL CHIP	100	5%	1/10W
R3	1-216-809-11	METAL CHIP	100	5%	1/10W
R4	1-216-809-11	METAL CHIP	100	5%	1/10W
R5	1-216-809-11	METAL CHIP	100	5%	1/10W
R6	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7	1-216-840-11	METAL CHIP	39K	5%	1/10W
R8	1-414-760-21	FERRITE, EMI (SMD) (1608)			
R9	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R10	1-414-760-21	FERRITE, EMI (SMD) (1608)			
R11	1-216-833-11	METAL CHIP	10K	5%	1/10W
R12	1-216-809-11	METAL CHIP	100	5%	1/10W
R13	1-216-833-11	METAL CHIP	10K	5%	1/10W
R14	1-216-797-11	METAL CHIP	10	5%	1/10W
R15	1-216-797-11	METAL CHIP	10	5%	1/10W
R41	1-216-821-11	METAL CHIP	1K	5%	1/10W
R42	1-216-821-11	METAL CHIP	1K	5%	1/10W
R44	1-414-760-21	FERRITE, EMI (SMD) (1608)			
R45	1-414-760-21	FERRITE, EMI (SMD) (1608)			
R70	1-216-842-11	METAL CHIP	56K	5%	1/10W
R71	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R72	1-216-842-11	METAL CHIP	56K	5%	1/10W
R73	1-216-833-11	METAL CHIP	10K	5%	1/10W
R74	1-216-837-11	METAL CHIP	22K	5%	1/10W
R75	1-216-833-11	METAL CHIP	10K	5%	1/10W
R76	1-216-837-11	METAL CHIP	22K	5%	1/10W
R77	1-216-833-11	METAL CHIP	10K	5%	1/10W
R78	1-216-833-11	METAL CHIP	10K	5%	1/10W
R79	1-216-833-11	METAL CHIP	10K	5%	1/10W
R80	1-216-833-11	METAL CHIP	10K	5%	1/10W
R81	1-216-833-11	METAL CHIP	10K	5%	1/10W
R82	1-216-837-11	METAL CHIP	22K	5%	1/10W
R83	1-216-833-11	METAL CHIP	10K	5%	1/10W
R84	1-216-837-11	METAL CHIP	22K	5%	1/10W
R85	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-795-562-21	VIBRATOR, CERAMIC (16.9344MHz)			

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MISCELLANEOUS
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8	1-776-206-21	CORD (WITH CONNECTOR) (POWER)
57	1-780-199-11	CONDUCTIVE BOARD, CONNECTION
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)
154	A-1088-615-A	CHASSIS (OP) SUB ASSY (including M901)
LCD901	1-805-919-11	DISPLAY PANEL, LIQUID CRYSTAL (GT150/GT150S)
LCD901	1-805-920-11	DISPLAY PANEL, LIQUID CRYSTAL (GT10W/GT100)
M902	A-1088-614-A	MOTOR ASSY, SL (SLED)
M903	A-1088-622-A	MOTOR ASSY, LE (LOADING)
RE901	1-478-474-12	ENCODER, ROTARY (PUSH SELECT/VOLUME)
SW4	1-786-339-11	SWITCH (M) (LIMIT)

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ACCESSORIES
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	2-651-184-12	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (GT10W:CND/GT100)
	2-651-184-21	MANUAL, INSTRUCTION (ENGLISH,SPANISH, SIMPLIFIED CHINESE) (GT150/GT150S)
	2-651-184-32	MANUAL, INSTRUCTION (ENGLISH,SPANISH) (GT10W:US)
	2-651-186-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (GT10W:CND/GT100)
	2-651-186-41	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SIMPLIFIED CHINESE) (GT150/GT150S)
	2-651-186-51	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH) (GT10W:US)
	X-2024-133-3	CASE ASSY (for FRONT PANEL) (EXCEPT US)

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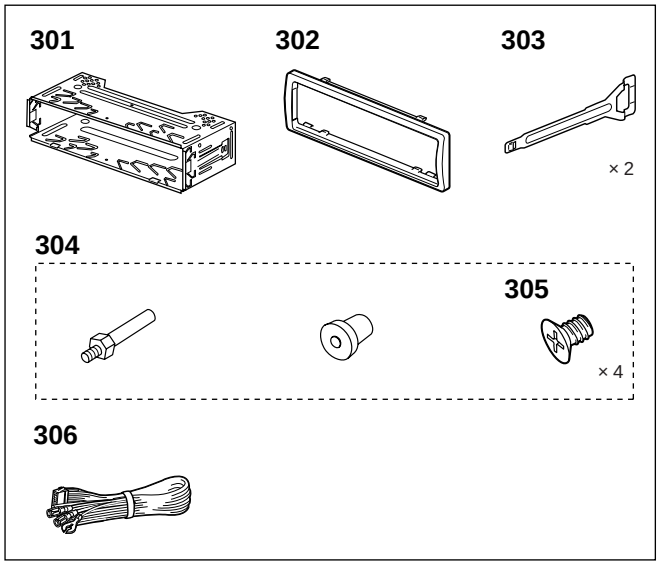
Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	2-187-743-02	COLLAR	
303	3-246-011-01	KEY (FRAME)	
304	A-1082-993-A	SCREW ASSY (BS4), FITTING (GT150/GT150S)	
305	3-259-776-01	SCREW (+K 5X8 TP)	
306	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	



REVISION HISTORY

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Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005. 09	New